Encyclopedia of the Game Industry

Vol. 2: J-Z

Last Update: Fall 2025

What is the *Encyclopedia of the Game Industry*?

The *Encyclopedia of the Game Industry* is a collaborative document produced as a class assignment in Dr. Laine Nooney's undergraduate course, Video Game Economies, taught in the Department of Media, Culture, and Communication at New York University (this course was titled Video Games: Culture and Industry until Spring 2020).

For the assignment, each student independently writes an encyclopedia entry on a topic related to the contemporary game industry—whether a company, concept, geographic region, business model, etc. The goal of the *Encyclopedia* is to produce a snapshot of the industry at the moment the course takes place (currently in the late 2010s and 2020s) as a public resource for historians in the future, stored on the Internet Archive.

The *Encyclopedia* is added to every semester, and students must choose new topics; revision of pre-existing entries has not yet been considered. Students are only marked by their initials and the year and semester they were enrolled in the course.

Style, focus, clarity, criticality, quality of citations, and even accuracy may vary from entry to entry, though only entries that received an 85 or higher are recorded in this document. [UPDATE: the minimum grade for inclusion was raised to an 88 starting Fall 2019]. References are provided for the purpose of verification of claims. Entries have not been edited after submission, except to correct glaring typographic, citation style, or structural errors.

This is an imperfect document. It should be both referenced and celebrated as such.

At the time this document was compiled, Dr. Laine Nooney is an Assistant Professor of Media and Information Industries in the Department of Media, Culture, and Communication at New York University. [UPDATE: Dr. Laine Nooney was promoted to Associate Professor in Spring 2024].

Laine Nooney, ed. *Encyclopedia of the Game Industry*. 2018.

Dates of Revision:

May 2019
December 16, 2019
June 8, 2020
December 23, 2021
May 15, 2022 (split into two volumes)
August 25, 2022
December 24, 2022
December 24, 2023
September 16, 2025
December 23, 2025

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Japan, Independent Video Game Industry

Overview

Japan has long held a strong foothold in the global video game culture since its first success, Atari's Pong in 1972, and the emergence of Nintendo as a prominent player in the arcade gaming outbreak (Picard 2013). Likewise, Japan's gaming expertise was bolstered by the rapid proliferation of the "Made in Japan" label through PC and consoles sales, as well as the distribution of triple-A games to global markets. Although Japan was predominantly reputable for its high budget games, its indie game scene is on the rise with growing exposure in local and global markets. Undoubtedly, the wide acceptance of "*geemu" (*Japan's video gaming culture) accelerated the growth of a broad "network for indie developers," as they did not feel stigmatized for working in this niche industry (Helland 2018). Independent game development was initially perceived to be rather controversial, since dominant cultural narratives "promote working for the larger Triple -A's" to contribute to the Japanese economy rather than the small projects operating independently. Nonetheless developers working in large corporate studios often felt the lack of flexibility to produce the games that they wanted, resulting in a quick shift towards independent game development (Helland 2018).

Dōjin and Indie Games in Japan

Unlike that of other game economies, Japan's independent game scene is divided into "two main incarnations of independent game development: *dōjin* and *indie."* (Vogel 2017). The term *dōjin* denotes "the Japanese tradition of hobbyist game making," a form of independent game development grounded in the Japanese culture. *Dōjin* game developers work completely independently or in smaller teams of 3 to 5 people to create games based "upon their own desire to play" (Hellard 2018). The goal of *dōjin* games is not to make money as they were generally passion projects rather than corporate motives. One of the most popular *dōjin* games in Japan is the Touhou series, which has accumulated a huge fan base and became a cultural trend as fans create Touhou based anime, artworks and even bands (Priestman 2016). Unfortunately, the dōjin community is only a local Japanese phenomenon that lacks global adoption. Developers in this category thus still face issues in "unlicensed use of popular manga, game, and animation characters, and its tendency to release games on physical media" (North 2015).

The *indie (indīzu)* game genre in Japan, on the other hand, is a more Westernized construct that "comes with baggage from already-existing subcultures outside the Japanese sphere," such as the production and distribution methods (Vogel 2017). Emergence of *indie* as a new category of games, created notable shifts in the movement of games bringing in new distribution and production channels such as crowdfunding with Kickstarters helped bring games like "Castlevania" and "Mega Men" quickly into mass adoption in foreign markets (Priestman 2016). Increased efficiency in distribution channels made indie games a more profitable and desirable

mode of game production, which became a threat to the dōjin game category as developers switched to producing Westernized indie games for greater monetary success in overseas launches.

Nonetheless, dōjin games continue to struggle to reach markets outside of Japan due to the lack of strong distribution networks that led to these games being ignored by many traditional game publishers (Ashcraft 2013). Differences in the movement and reception of indie and doujin games in global markets can be explained with the concept of "cultural odor". The term coined by Koichi Iwabuchi describes the "element of "Japaneseness" which was often designed "out" of products intended for export" (Consalvo 2007). The difficulty dōjin games struggled to amass faced in gaining global popularity because of can be attributed to its "closer cultural connections to Japan, including use of the Japanese language, and different genre conventions" (Consalvo 2007). However, this nevertheless works to their favor in expanding their presence and reception in the Japanese local markets.

The History and Development of Japan's Indie Game Industry

To understand how Japan's indie game industry developed into these two distinctive categories, one must start with the technological changes happening in Japan during that time. As the United States' personal computers industry boomed, major Japanese corporations such as Mitsubishi and Sony started manufacturing their own PCs for Japan's local market. The PC market success in the early 1980's galvanized the rise in video game development as "many Japanese video game developers [were] producing exclusive titles for these platforms" (Picard 2013). Access to home computers "led to the emergence of doujin soft (or doujin geemu)," wherein indie developers were able to produce better games on PC. Since dōjin games are often produced on a small scale, they were either "distributed by mail order on cassette tapes or floppy disks, or even "on line" via a telephone modem" at marketplaces and conventions like the Comiket (Comic Market) in the mid 1980s (Picard 2013). These games were made exclusively for PCs and marketed only to enthusiast communities. Consequently, even those who knew about them lacked access since PCs was not a common mode of video game play in Japan.

However, due to dōjin games' distribution in the physical format instead of digital, these games only flourished in Japan. Japan's media consumption patterns at the time were already centered around physical entertainment in the form of printed manga. Since the dōjin game genre is based on "known fandoms" and was distributed as a physical video game box, the games seamlessly integrated into the existing pop culture and garnered positive reception (Vogel 2017).

The Rise of Japan's Indie Game Industry

Global and local recognition of Japanese independent game industry has always been a continuous battle. Indie games didn't do as well when it was first introduced to Japan's game industry. The term indie "previously held negative connotations of being cheap and due to past

instances of creators “borrowing” things from other game makers” (Coskrey 2019). The indie gaming community was fairly weak in Japan compared to Western cultures, until conventions and expos dedicated to promoting Japanese indie games appeared. These marketplaces were organized by English-speaking expatriates in Japan and started to build a strong indie community within the country. Modeled after the indie communities in US cities, the success of BitSummet in Tokyo (Japan's First indie game festival) created a new community of Japanese indie game developers looking to reach global markets (Ellison 2014). The festival was a marketplace that brought the “indie community together and put developers in the same room as publishers, creators of game engines and international media" (Coskrey 2019).

Westernized indie games received relatively poor reviews in the Japanese local market due to the foreignness of the genre and themes within the game. These games however were well-received in global markets due to their similarities with existing Western indie games. The intervention of indie games into Japan’s market induced shifts in the production and distribution mechanisms of games, orienting developers to produce for global markets (Vogel 2017). Japan’s independent game industry is therefore an insightful example of how cultural values and societal norms can truly impact the perceptions of games in global networks.

-N.D., Spring 2020

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Kakao Games

Overview

Kakao Games is a subsidiary of Kakao Corporation based in South Korea that provides game service platforms for mobile and online PC games. For mobile games, the service operates through Kakao Talk, Kakao's instant messaging application, and requires access to users' Kakao Talk account in order to facilitate the downloading and launching process. For online PC games, users could access the platform directly on http://game.daum.net/, using either their Kakao Talk account or Daum account to log in. Additionally, Kakao Games operates a digital distribution platform for mobile games, Kakao Games Shop, which serves as an alternative to Andriod's Google Play and the iOS App Store.

As of April 2020, Kakao Games reported more than "20 million monthly active users" across its game portfolio and services and has launched "over 1,100 games" through both its in-house game development team and global partnerships with game developers (Kakao 2020).

The History and Development of Kakao Games

Since 2009, the swift growth of smartphones in South Korea and the consumers'rapid acceptance of the new technology has fueled the immense success of Kakao's free mobile instant messaging application, Kakao Talk. The messaging service gained "more than 90% of Korean smartphone users overall," as of 2012, only two years after Kakao Corporation was founded (Hjorth and Richardson 2014). The rise and accessibility of smartphones also opened up new opportunities for Korean game developers and introduced more people to the mobile and casual game markets. Kakao Games was founded in 2012 (formally established in 2013) in this context and Kakao Talk was transformed into a distribution platform for mobile games (Jin 2017).

The rise in popularity of Kakao Games was due to "Kakao Talk's propensity to generate virality and visuality for its games" (Kim, Lim, and Shin 2014). Kakao Talk, as a platform for mobile games, requires access to the users' Kakao Talk accounts, allowing them to invite friends to play games (in return for rewards), chat about the game, or send special game emojis. The generated network effect proved to be a useful viral marketing tool for gaining new users and driving game pre-registration. This mixture of gaming and messaging facilitated the widespread popularity of "Anipang for Kakao," a match-3 puzzle game that brought along the "Anipang Syndrome" and "Dragon Flight for Kakao," which recorded over 20 million downloads (Korea IT Times 2013). With both games becoming "national games one month after launching," more and more people became interested and started participating in the mobile game market (Hjorth and Richardson 2014). As a result, more games flooded onto the platform and, with Kakao Games driving massive installs, many achieved the top charts in Google Play and the iOS App Store, resulting in a great surge in Kakao Talk's popularity as a platform and Kakao Games' net worth. (Kim, Lim, and Shin 2014). In 2014, Kakao made a $3.4 billion merger deal with Daum Communications, an Internet service company based in South Korea (Jin 2017). Later in 2016, Daum Communications' subsidiary, Daum Games, officially merged with Kakao Games. Operating as a platform for online PC games, Daum Games gives users the options of logging in

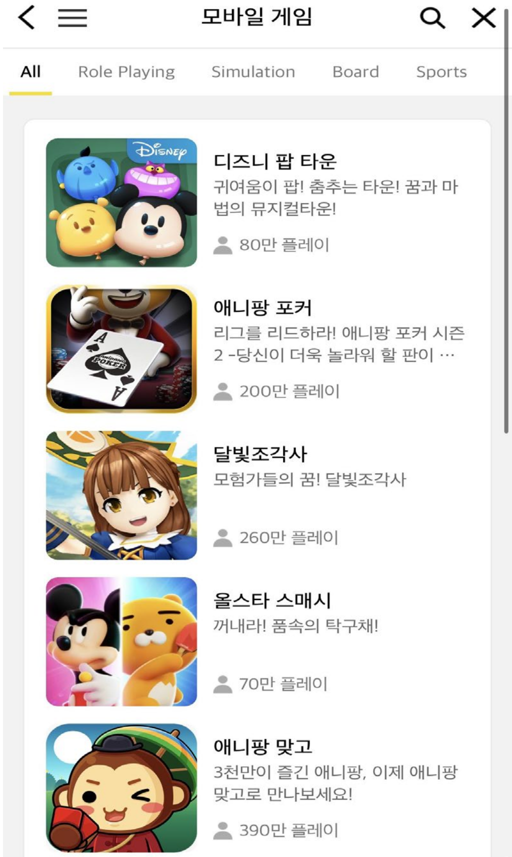
using either their Daum accounts or their Kakao Talk accounts, utilizing the benefit of Kakao Talk's network effect and friend-to-friend invitations.

Recently, Kakao Games has noticed that games using other logins could not be published on its platforms as a result of the Kakao Talk login restrictions (Kim 2019). To solve this issue, Kakao Games' CEO, Nam Koong-Hun, has announced that from August 2019 onwards, "developers are not required to include a Kakao Talk account login in the game, even if they are channeling games with Kakao Games" (Kim 2019). The Kakao Talk login would remain as an option for developers to use in parallell with other logins.

The Functions of Kakao Games' Platforms

Kakao Games' platform for mobile games, Kakao Talk, mainly consist of two sections: the section for downloadable mobile games applications and the section for online mobile games. To download mobile game applications, users need to click on the game tab, labeled "게임하기" (game consol icon), on their Kakao Talk's "Other" page (figure 1). Users are then directed to the mobile game center, where they could browse games of various genres (figure 2). The games themselves, however, are downloaded through the user's device app store (such as the iOS App Store or Android's Google Play), with Kakao Games handling in-game payments. As for Kakao Talk's online mobile games, users with Internet connection could browse and play the games right on Kakao Talk's game center (figure 3).

Figure 1 Screenshot of Kakao Talk's "Other" page as of April 24, 2020.



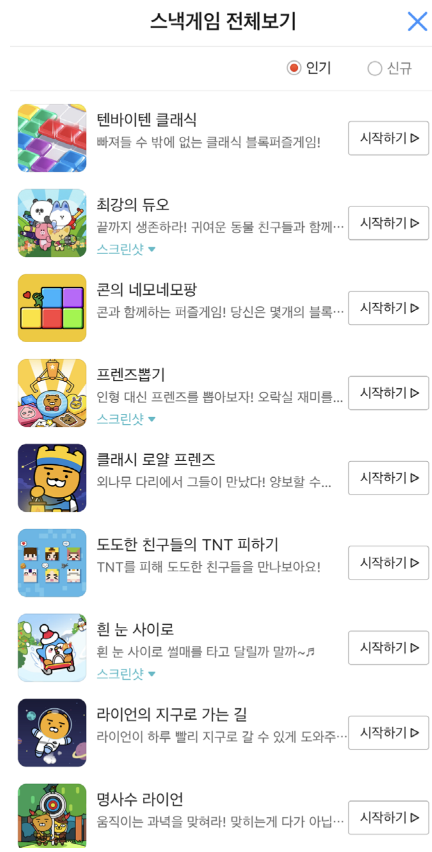


Figure 2 Screenshot of Kakao Talk's platform for mobile games as of April 24,2020.

Figure 3 Screenshot of Kakao Talk's online mobile games as of April 24, 2020.

One of the ways Kakao Talk markets its games is through its game channel. In the same way users receive texts from friends, users could subscribe to Kakao Talk's game channel to receive news about game releases and updates. To drive installation, game applications are advertised on Kakao Talk's "Other" page in a randomized order (figure 2). Another important marketing tool for Kakao Talk is a game personalized feature called "Game Byul." The feature allows users to "collect mileage points by achieving experience points playing compatible mobile games and use it to buy mobile content such as emoji packs" (Yoon 2016). For game developers, Kakao Talk's Game Byul provides diverse measures to attract new users and retain existing ones.

Since Kakao Talk relies on Google play and the iOS App Store to facilitate the downloading process of mobile games, 30 percent of Kakao Games' revenue is allocated to the two companies (Kakao 2016). To reduce this fee, Kakao Games' web-based app store, "Kakao Games Shop," was created. With Kakao Games Shop, game developers would receive 60 percent of the revenue from the initial 49 percent; Kakao receives 25 percent; and users receive 10 percent, given as Kakao Coins, which could be used as in-game currency (Kakao 2016). To download games from

the Kakao Games Shop, users could access the web page directly at https://g.kakao.com/ from their smartphones and use their Kakao Talk login to download the installation file (apk) (Park 2015).

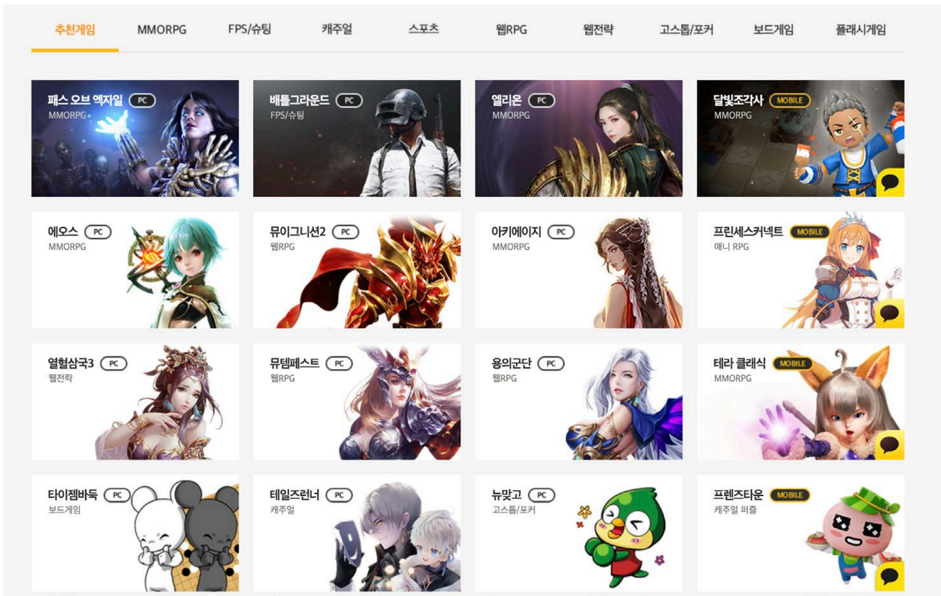


Figure 4 Screen capture of Daum Games as of April 24, 2020

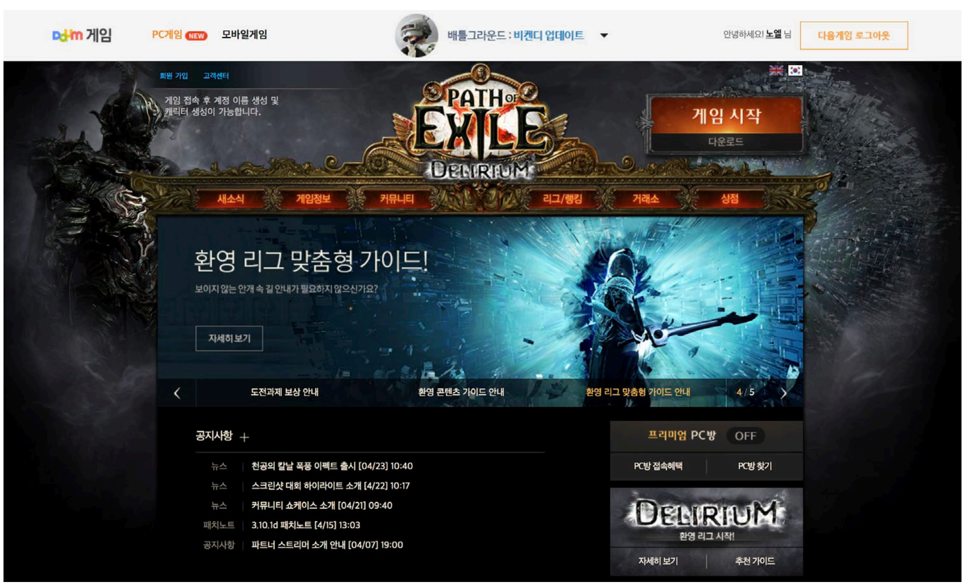


Figure 5 Screen capture of Daum Games' Path of Exile page as of April 24, 2020

Unlike Kakao Talk, Kakao Games' online PC gaming platform, Daum Games, offers gaming service in a different way. A core function introducted by Daum Games is the creation of online community platforms for every game it offers. On Daum Games' main page (figure 4), all the

games' online community platforms are listed under the menu bar where users could filter games according to their genres. Each of the games' online community platforms has bulletin boards, game guides, recommended videos, ranking and leagues, tips, and other resources for users to socialize with each other and play the game (figure 5). A game is directly accessed on its online community platform after logging in, and users could create different usernames for different games under one Daum or Kakao Talk account. Although certain games could not be played outside of South Korea, all online community platforms are accessible regardless of the location. Daum Games' main page also has a column for mobile games (the 4th column in figure 4), which directs users to Kakao Talk's mobile game center, to drive online PC gamers' awareness for Kakao Games' mobile games.

- N.A., Spring 2020

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K-Pop in Video Games

Overview

K-Pop, also known as Korean Pop music, is a mainstream genre of music that originates from South Korea. Within the past decade, K-Pop has grown in international prominence as an economic and cultural player. According to the International Federation of the Phonographic Industry, the South Korean music market experienced a 17.9% increase in revenue growth in 2019 (Kelley 2019). The idol/celebrity industry that stemmed from the K-Pop genre also grew into a subculture that amassed a "huge and highly connected ecosystem of fans that has a deep, even life-changing, attachment to [K-Pop] groups" (Dooley and Lee 2020). Because K-Pop has gained greater global visibility through its fans, its potential to prosper economically within different entertainment industries has made it a target among contemporary video game companies of the 21st century. The strong participatory culture of K-Pop's passionate fans is now providing a way for K-Pop and video games to coexist for ideal economic and cultural circulation in digital spheres.

K-Pop Choreographies in Dance Animations

Before K-Pop was well established enough to make its way into video games with partnerships, it was subtly included in the form of dance animations. In Riot Games' flagship title *League of Legends*, champions have built-in dance effects that are unique to each character. Riot Games introduced a new female champion called Ahri in 2011, who would introduce the first K-Pop reference into the game. Although nothing about her default appearance had any obvious ties to K-Pop, her dance animation said otherwise. While dancing as Ahri in-game, *League of Legends* players could see her dance to "Run Devil Run," which was a popular song released by K-Pop girl group Girls' Generation at the time. And in 2012, Riot Games released another female champion called Syndra, who would dance to "Hoot" by Girls' Generation. These K-Pop choreographies that were given to certain champions were little easter eggs for K-Pop fans who were sharp enough to spot them. Years later, games such as *Fortnite* and *Overwatch* would follow and also include their own emotes and dance animations that include recognizable K-Pop choreographies.

In-game Cosmetics

In order to better capitalize on the K-Pop industry, gaming companies started to introduce in-game cosmetics that had more obvious associations with K-Pop groups. This business move closely aligned with the rising K-Pop merchandise industry, which was valued at around $132M in 2019 (Kim 2019). K-Pop groups are no longer marketed as just artists, but also as goods. They have a pipeline of collectible products that fans will buy if they are associated with their favorite K-Pop groups. Fans then actively consume these products that represent the artist as an act of taking on an identity that is associated with the groups while exercising self-expression. An early example of K-Pop fans acting as an economically beneficial consumer base in the video game industry occurred in 2013 when Riot released the new Popstar Ahri skin for *League of Legends*. Some K-Pop fans purchased this skin knowing that the splash art bore an uncanny resemblance

to Girls' Generation's outfits in their music video for "Genie." However, the skin wasn't obvious enough to convince every K-Pop fan into buying it.

To entice modern-day fans into buying the video game equivalents of K-Pop merchandise, some gaming companies have released limited-edition in-game cosmetics such as character and weapon skins that were clearly inspired by K-Pop idols. In 2019, *Fortnite* released a limited-edition skin and emote that was based on singer Jung Chanwoo from K-pop group iKON. Then, *PUBG* collaborated with BLACKPINK and released cosmetic bundles that included themed outfits, hair, nameplates, helmets, weapons, and emotes for a total of 38 distinct items (PUBG Battlegrounds 2021). These two collaborations were highly anticipated due to both groups' popularity and association with YG Entertainment, which holds elite status as an entertainment agency in South Korea. By taking advantage of iKON and BLACKPINK's star power, both *Fortnite* and *PUBG* let their fandoms do the online circulation and user-generated marketing within the digital communities that these fans occupied. The online culture of K-Pop fandom formation allowed fans to further build up the desire to purchase in-game cosmetics that were based on K-Pop groups and identify with each other through those purchases.

K/DA: The First Virtual K-Pop Group

The most major-scale project that involved both the K-Pop and gaming industry was the birth of K/DA. In 2018, Riot Games debuted a virtual K-Pop group called K/DA for their flagship title *League of Legends*, where the members were voiced by popular singers such as (G)I-DLE's Soyeon, (G)I-DLE's Miyeon, and Madison Beer. This group was multilingual and was comprised of four of Riot's in-game *League of Legends* champions. Their first song, POP/STARS, has currently amassed over 509 million views on Youtube as of May 9, 2022. Not only was this project an unexpected crossover between established singers and popular characters in-game– but it was also critically acclaimed. Following its release on Nov. 3, "POP/STARS" made it to the top of the US iTunes' K-pop and Billboard's World Digital Song Sales charts, beating out veteran K-Pop groups such as BTS and EXO (Lim 2018). The group also performed live at multiple *League of Legends* World Championship finals after 2018, which bridged the gap between the virtual and the tangible live experience that *League of Legends* could offer. Thus, this musical venture that intersected two forms of media was well-received by audiences due to its novelty and overall quality.

Figure 1: Riot Games' virtual K-Pop group K/DA (*League of Legends* Official Website)

K/DA's success can also be attributed to Riot's commitment to cultural authenticity. Riot has consistently utilized cultural localization tactics to aggressively tap into the Korean market, and K/DA is not an exception. K/DA was birthed in homage to South Korea, which has consistently been one of *League of Legends*' most loyal regions since its inception, with almost 50% of Korean PC Bang (or internet cafe) users choosing to play *League of Legends* compared to the single-digit percentages of other games' Korean player bases (Esguerra 2019). Ahri, who is South Korea's most beloved champion and also based on old Korean folklore, was also included in the K/DA lineup as a form of fanservice (Brown 2017). As for the creative process, K/DA's latest single "MORE," has all the familiar sounds of a Blackpink single, which resonates with K-Pop fans. This connection is due to Riot's collaboration with songwriters like Bekuh BOOM, who has worked with Blackpink as well as other big K-Pop groups such as Winner and iKON (Park 2020). Riot also hired Lia Kim, a well-known K-Pop choreographer, to choreograph the dance for "MORE" (Yoon 2020). By involving creative professionals that have worked on K-Pop projects in the past, Riot made its appeal to fans who viewed K/DA as a legitimate extension of the K-Pop industry. And through its legitimacy, Riot can continue to profit off of K-Pop fans who look forward to K/DA's next wave of activities, much like any other K-Pop group.

-S.H., Spring 2022

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Ketchapp

Overview

Ketchapp, the mobile game publisher, was founded in 2014 by Antoine and Michel Morcos, two brothers from France. Ketchapp has made a name for themselves by frequently publishing mobile games in the "hyper-casual" genre known for drawing users in through aesthetic design, simple gaming mechanics, and often, free-to-play options. Despite concerns that Ketchapp publishes clones of other games, their company was purchased in 2016 by Ubisoft, a French video game developer and publisher, who during the 2015-2016 period, had amassed a total revenue of over 1.5 billion U.S. dollars (Ubisoft Entertainment 2016).

Ketchapp's History and Publishing Strategy

Created under the foundation of releasing "hyper-casual" games made by independent developers, Ketchapp released their first game, '2048', on March 9, 2014 to mobile app marketplaces. '2048' is a "hyper-casual" game in the way that it is easy-to-play with simple mechanics and displays a minimalist design with a visually satisfying color palette. The game only requires the swipe of a finger to fulfill the task of creating number combinations. '2048' was a hit on the Apple app store by becoming the number one free app within two weeks of its release (Takahashi 2014). '2048', along with all of the other games that Ketchapp publishes, was initially pitched to them through a Google form link on their website. Rather than spending money and time on in-house development, Ketchapp assists the developers of the chosen games through the game publishing process and promotes a "developers first" attitude while doing so. In 2015, Ketchapp published another game that was met with a positive reaction from mobile game consumers similar to that of '2048'. This game was 'ZigZag' and it became "the top-downloaded iOS game in February, according to industry-tracking firm App Annie." (Grubb 2015). 'ZigZag', like '2048', is a "hyper-casual" game as a result of its simplistic design and basic mechanics. '2048' and 'ZigZag' ended up being two of Ketchapp's most well received mobile games that were published before they were purchased by Ubisoft in late 2016. In a February 2016 "Insider" article, it was mentioned that Jonatahn Kay, from Apptopia, estimates "that the company [Ketchapp] brings in more than $6.5 million per month in revenue." (Stenovec 2016).

Ubisoft's Acquisition of Ketchapp

In September of 2016, Ketchapp was purchased by Ubisoft for an undisclosed amount of money. Ubisoft used this acquisition as an opportunity "to gain a stronger foothold in the inscrutable realm of mobilia" (Grayson 2016). At the time of the acquisition, Ketchapp's games had been downloaded over "700 million times or an average of 23 million downloads per month." (Grubb 2016). In terms of Ketchapp, the press release stated that this acquisition would allow the "leveraging [of] Ubisoft's creativity and resources to enrich our existing and upcoming titles."

(Ubisoft Entertainment 2016). Prior to Ubisoft's expansion into mobile gaming through Ketchapp, Ubisoft, founded in 1986, initially was known for their involvement in the 80s and 90s game console industry. In the 2000s, Ubisoft became known for their work on the 'Assassin's Creed' and 'Far Cry' franchises. While branching out into mobile gaming, Ubisoft was still very prominent in the console industry of 2016 (the year that Ketchapp was purchased) with the release of 'Far Cry Primal', 'Assassin's Creed: The Ezio Collection', as well as multiple 'Assassin's Creed' expansion packs. Game industry analyst Jeff Grubb noted that the acquisition of Ketchapp brought additional value to Ubisoft as a result of how "The company [Ketchapp] built a platform that can find new mobile games an audience almost immediately." (Grubb 2016). Since its founding, Ketchapp has utilized the frequently seen tactic of advertising their games within other games that they release- which brings a consumer from game to game. They continued to do this after being purchased by Ubisoft. The overall acquisition of Ketchapp was not received positively from critics within the video game industry due to the claims of cloning that have been made against Ketchapp- especially pertaining to their first game, '2048'. Game journalists Nathan Grayson and Bryant Francis both observed that Ubisoft failed to publicly acknowledge these claims upon purchasing Ketchapp.

Cloning Controversy

Articles accusing Ketchapp of game cloning were released almost immediately after Ketchapp published their first game, '2048' in 2014. '2048' is a near exact copy of 'Threes', originally released to the iOS app store in February 2014 by Sirvo LLC. 'Threes' was released with a price of $1.99 whereas it's clone, '2048' was released as free-to-play. 'Threes', similarly to the games that Ketchapp publishes, falls under the "hyper-casual" mobile game genre in terms of its overall simplicity, however, writer Dean Takahashi noted that "the problem with simple games is that others can easily rip them off." (Takahashi 2014). Ketchapp utilizes pre-existing game ideas to therefore re-release a version made by a new developer and this is how many of their "hit" games originate. Takahashi mentioned that according to a statement released by the 'Threes' developers, they "aren't so worried about that game [2048]" (Takahashi 2014) because they feel as though their game, which took more than a year to create, is superior to '2048'. However, not all developers who ended up on the bad side of a Ketchapp clone carry the same attitude as the creators of 'Threes'. In the spring of 2015, a year after the release of '2048', Ketchapp was in the middle of yet another cloning controversy when game developer Matt Akins noticed that a game that he pitched to Ketchapp, called 'Rotable,' was slightly tweaked and later released by Ketchapp under the name 'Circle Pong'- despite declining his submission. Akins reacted to this by releasing a document "that accused a company [Ketchapp] of stealing his video game." (Klepek 2015). However, these accusations were never met with any legal consequences because "Akins did not ask Ketchapp to sign a non-disclosure agreement when he submitted his game" (Klepek 2015). Whether or not there were legal implications, game clones are still something that game industry specialists take very seriously when publishing articles about a given company.

Recent Developments

In 2018, Ketchapp, under Ubisoft, was brought into the realm of Chinese mobile gaming through a major partnership with Tencent, a large Chinese technology entity. A select amount of Ketchapp games can now be played throughout China on Tencent's Weixin Mini-Game mobile app. "Given Weixin's massive appeal, the partnership represents a big opportunity for Ubisoft to make a name for itself in the lucrative region." (Kerr 2018). Through Ubisoft's partnership with Tencent, there is ample space for wide exposure of Ketchapp titles since Chris Kerr stated that in 2018, Weixin had nearly 1 billion users per month on average (Kerr 2018).

Since the founding of Ketchapp in 2014, they have been able to publish more than 200 games, made by over 100 different developers (Ketchapp 2019). Within those 200 games, Ketchapp has amassed a total of more than 1.5 billion downloads. Many of these games have spent time at a top spot on the app store charts with multiple games reaching over 100 million downloads (Ketchapp 2019). Despite the seemingly constant cycle of cloning controversies that Ketchapp finds themself in, game industry analysts still anticipate updates, shifts, and especially, controversies that the company is in relation to- showing the relevance that Ketchapp has within the larger landscape of the mobile gaming industry.

-S.P., Fall 2021

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Koei Tecmo

Koei Tecmo is a Japanese video game developer and publisher. The company is a merger between Koei and Tecmo that occurred in 2008. Having subsidiary companies in North America, Europe, and Asia, Koei Tecmo develops and publishes an array of game genres for audiences worldwide (Koei Tecmo).

The estimated video gaming market worth is approximately $89 billion by 2019, in addition, the global video game industry is predicted to grow at CAGR of 3.6% between 2015 and 2020 (Statistica 2016). Still an active player in the video gaming industry, Koei Tecmo seek to update its current lineup of video games for its audience.

Koei

Koei was founded by Yoichi Erikawa and Keiko Erikawa in 1978. Then a student at Keio University, Yoichi followed his passion in programming after a failed family business in dyestuffs. Initially, Koei's main operation was on personal computer sales and custom software for business. In March 1983, its game, *Nobunaga's Ambition,* was released for Japanese PCs and became popular, winning several awards. Seeing the popularity of history based video games, Koei went on to release another two successful series, *Romance of the Three Kingdoms* and *Dynasty Warriors* on the console platform (Koei Tecmo). *Dynasty Warriors* went on to become one of the biggest gaming franchises in Japan, releasing *Dynasty Warriors 9* in 2018 (Goldfarb 2011).

Tecmo

Tecmo was a Japanese video game corporation founded in 1967 by Yoshihito Kakihara. Tecmo was originally named Tekhan and was a supplier of cleaning equipment, then turned to sell amusement equipment. In 1986, Tekhan officially changed its name to Tecmo and developed the first video game for the Family Computer, called *Mighty Bomb Jack*. Tecmo achieved success in later releases such as *Ninja Gaiden, Dead or Alive,* and *Monster Rancher* (Tecmo 2010).

Koei & Tecmo Merger

In June 2008, Tomonobu Itagaki, head of Team Ninja, Tecmo's in-house team responsible for designing the *Dead or Alive* franchise, resigned from the company and sued Tecmo for $1.53 million over unpaid bonuses for his work on *Dead or Alive 4* (Ashcraft 2013). Following Itagaki's lawsuit, two plaintiffs filed another lawsuit against Tecmo for unpaid wages totaling $77,000. The lawsuit claims that Tecmo illegally had workers on flexible hours with uncompensated overtime work. The case that represented all 300 Tecmo employees also claimed that Tecmo made false documents and hid accounting records (Boyes 2008).

The video game industry had long been troubled by the so-called "crunch". This is where companies pressure mandatory overtime work, usually for the final push to finish a game. News of staff working 100-hour weeks have been reported to rush the due date for a video game's delivery (Wright 2018). The result is that company staff are inclined to either comply with the often unpaid overtime, or to resign.

Then a troubled company, Tecmo was offered a deal by Square Enix in August 2008 to take over the company. Square Enix would purchase the controlling interest in Tecmo by purchasing shares at 30% premium. This will help Tecmo expand in the US market, conversely strengthen Square Enix's portfolio of games (Ashcraft 2013).

Declining Square Enix's offer, Tecmo merged with Koei in 2008 and formed Koei Tecmo Holdings. Its primary operational company, responsible for developing and publishing video games was renamed Koei Tecmo Games (Reuters 2008). By 2011, it was officially announced that Koei and Tecmo, then separate development subsidiaries of Koei Tecmo Holdings, be absorbed by Koei Tecmo Games (Gantayat 2011). The frequent merger and acquisition within Koei Tecmo signifies the industry trend of its frequency over the last decade as higher stakes are introduced by increasing video game development costs.

Koei Tecmo Today

Despite frequent merges, Koei Tecmo remains a competitor in the video game industry, seeing increases in its revenue in 2018. With the release of *Dynasty Warriors* 9 in February, 2018, and *Attack on Titan 2* in March, 2018, Koei Tecmo is seeing a positive trend in its earnings. DLC sales in both games have also been a steady income for the company. Koei Tecmo has also expanded to mobile gaming titles, developing *Dissidia Final Fantasy: Opera Omnia* alongside Square Enix, which release in February 2017.

Koei Tecmo released its financial results for the first quarter of the fiscal year in 2018. The company reported that revenue was 8,109 million yen, up 24% year-on-year, and operating income was 2,294 million yen, up 133% year-on-year. Sales for the company were driven by its games on the home console market, primarily on PS4 and Nintendo Switch. There is also anticipation within the company towards the rising battle royale games in the industry.

Koei Tecmo has also been focusing on its three-year medium-term plan to push global IP creation and development, in order to better the value and profit from its original IPs (Nelva 2018).

Now president of Koei Tecmo, Hisashi Koinuma has set goals for the company's direction. Koinuma plans to expand Koei Tecmo's appeal to a wider international audience. Currently, the company's primary audience is heavily focused on Japanese audiences. The company's 2017

annual report showed that net sales to customers in Japan takes up approximately 73.15% of total net sales, whereas North America takes up approximately 11.91% of the total (Koei Tecmo 2017).

The company had already begun to expand in that direction. Koei Tecmo proceeded with adapting popular franchises to its already successful style of *Dynasty Warriors*. In 2012, Koei Tecmo developed *One Piece: Pirate Warriors*, with the most recent release in 2015 of its third installment, and proved more successful in the west. In 2014, Koei Tecmo also developed *Hyrule Warriors*, which was a collaboration with Nintendo on the adaption of its popular franchise *The Legend of Zelda*. These adaptions have made Koei Tecmo gain a stronger foothold in the North American market as characters are more familiar to the local audience.

Koei Tecmo will also be more active in promotions in North America, self-managing more of its presence in trade shows and distribution, rather than relying on third-party partners in the process. In terms of management, Koei Tecmo is now changing its micromanagement strategy and allowing individual teams to make sure video games are properly marketed overseas. This is an attempt to better the sense of ownership of each project (Knoop 2018). With these efforts, Koei Tecmo expects to see an expansion into western markets.

-K.K., Fall 2018

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Kojima Productions

Kojima Productions is a private Japanese video game development studio named after lead designer Hideo Kojima. Kojima Productions was initially formed by Japanese publisher Konami in 2005, which formed the studio from various subsidiaries including Konami Computer Entertainment Japan, which was where Kojima's team was based (GameSpot, 2005). Konami eventually disbanded the studio in 2015, and Kojima re-established it as a private studio soon after (McWhertor, 2015). Despite only officially being formed in 2005, Konami has retroactively referred to games directed by Kojima before 2005 as "Kojima Productions games". Konami has published every Kojima Productions game to date. Kojima Productions is best known for development of the *Metal Gear* and *Boktai* series and is currently working under an exclusive contract with Sony on the upcoming game *Death Stranding*.

Hideo Kojima Prior to Konami Computer Entertainment Japan

Hideo Kojima began working for Konami as a designer and planner for video games for the MSX system in 1986, a career he chose as a result of an admiration of film and video games that fostered in college. While he was initially snubbed by his superiors, he was ultimately given control of the title *Metal Gear*, which would become the catalyst to his career (Gates, 2018). *Metal Gear* tells the story of special forces operative Solid Snake who is sent to the fictional military state of Outer Heaven to destroy the titular nuclear tank, Metal Gear. The game received critical acclaim for its story and unique gameplay mechanics and is widely considered the first example of a successful stealth action game. In the coming years before he began working with a team at Konami Computer Entertainment Japan, he would produce other games, including a *Metal Gear* sequel for the MSX, and a cyberpunk game for the 3DO Interactive Multiplayer called *Policenauts* (Gates, 2018).

Konami Computer Entertainment Japan

Konami Computer Entertainment Japan was a development group that formed as a subsidiary of the Konami Corporation in 1996. The group was formed by several high ranked employees in the video games department of the Konami Corporation, including Hideo Kojima. As vice president of the company, Hideo Kojima directed numerous games while maintaining managerial responsibilities (GameSpot, 2005).

The first game that Kojima directed with KCE-J was a third *Metal Gear* game. Beginning development in 1995, the game would be called *Metal Gear Solid*. The game was heavily promoted, with Konami spending $8 million on an aggressive marketing campaign. Released in September of 1998, the game was praised for its graphics and story, many likening it to a work of cinema. The game would eventually sell over 6.5 million copies, 1 million in Japan and approximately 5 million in the United States and Europe, far exceeding Konami's expectations (Keighley, 2012).

KCE-J would continue to grow over the years, consolidating other subsidiaries of Konami's Japan operations. By 2000, Konami Computer Entertainment Japan would have merged with Konami Computer Games Aoyama, Konami Computer Entertainment Shinjuku, and Japan

Business Consultant (GameSpot 2005). The company eventually split into two studios, known as KCE-J East, and KCE-J West, with Kojima's team working out of KCE-J West.

Kojima's team would release two more main *Metal Gear Solid* games as KCE-J West, those games being *Metal Gear Solid 2: Sons of Liberty* and *Metal Gear Solid 3: Snake Eater*. *MGS2* cost $10 million to develop due to Kojima's desire to push the graphical limits of the PS2 (Keighley, 2012). Released in November of 2001 in America, *MGS2* sold even better than its predecessor, ultimately selling 7 million units (Lee, 2008). *MGS3* was released in late 2004 for the PS2. Despite critical acclaim, *MGS3* sold worse than any previous *MGS* game, only selling 3.6 million copies as of September 2005 (Konami, 2005).

Kojima Productions

On April 1st, 2005, Kojima's team became established as Kojima Productions. This is following a huge restructuring, where all Konami video game subsidiaries, including both KCE-J offices, were consolidated into the Konami Corporation. Konami gave Kojima control of his team in the form of a studio inside the Konami Corporation. The establishment of Kojima Productions would also be a way for Hideo Kojima to back away from the managerial and business aspects of his work as vice president of KCE-J, and more towards creative work in game development (GameSpot, 2005).

The first game that Kojima Productions released under its own studio was an *MGS3* rerelease entitled *Metal Gear Solid 3: Subsistence*. Released in December of 2005, *Subsistence* mainly added tweaks to gameplay, but most notable was the new addition of a multiplayer online mode. *Metal Gear Online*, as it was called, allowed for 8 player online tournament style game modes, which would become a mainstay feature in future titles (Konami, 2005).

Kojima Productions began work on *Metal Gear Solid 4: Guns of the Patriots* in 2005, marking the beginning of a long and expensive production cycle. Kojima Productions hired approximately 100 new employees to help develop their most ambitious title yet (Nutt, 2007). Outsider estimates placed the cost of development at upwards of $50 million, with much of that money being used on educating the expanded staff in military tactics. This cost eventually paid off, as by 2014, upwards of 6 million units had been sold (Alexander, 2014). The game released with its own version of *Metal Gear Online*, and sales profits were slightly bolstered by expansion packs that gave *MGO* players access to different maps and characters.

After *Guns of the Patriots*, Kojima Productions took a long hiatus from developing console *MGS* games, instead releasing some handheld and mobile spinoffs. They developed mobile games *Metal Gear Solid Touch* in 2009 and *Metal Gear Solid: Social Ops* in 2012. Both games were free with optional DLC purchases, but both games were unpopular and quickly discontinued. Kojima Productions spent much of the hiatus between *MGS4* and *MGS5* working on the FOX engine, a cross-generational, cross-platform game engine. The FOX engine was slated for use in a sequel of the Konami franchise *Silent Hill*. The spinoff, titled *Silent Hills*, was announced to be developed by Kojima Productions in 2014 and had been in development since 2012. (Sarkar, 2015).

Metal Gear Solid V and Initial Closure

Following the development of the FOX engine, development on the next big *MGS* project began. It would eventually be revealed that there would be two games released as *Metal Gear Solid V*, one of them subtitled *Ground Zeroes* and the other subtitled *The Phantom Pain*. The game would be released on the PS3, PS4, Xbox 360, Xbox One, and PC, marking the first time a *Metal Gear Solid* game would be released cross-platform. To assist in the development of both *MGSV* games, Konami opened a Los Angeles office for Kojima Productions in September of 2013 (Sinclair, 2013).

Ground Zeroes was released first in March 2014 on console and December 2014 on PC. *Ground Zeroes* received critical acclaim for its new open world gameplay but was criticized for its extremely short length, as it cost $39.99 on release. It sold 1 million copies as of April of 2014 (Romano, 2014).

In March of 2015, Konami representatives announced a corporate restructuring to better respond to rapid market changes in the games industry, specifically to move towards mobile gaming (Sarkar, 2015). Soon after this announcement, Konami began removing the Kojima Productions logo and Hideo Kojima's name from all *Metal Gear Solid* promotional material and office buildings. Konami similarly scrubbed Kojima's name from *Silent Hills,* before cancelling the game's development altogether (Sarkar, 2015). In an interview given in May, Konami president Hideki Hayakawa told Japanese publication Nikkei that *Metal Gear* and *Silent Hill* plans were being pulled back on because those franchises did not have any plans on the mobile gaming front (Sarkar, 2015).

It was further reported by Nikkei that Kojima Productions staff were being treated as contractors rather than permanent employees. Kojima Productions staff were given a contract that was due to expire in December of 2015, following the release of *The Phantom Pain* (Yin-Poole, 2015). Konami staff reported having their lunch and bathroom breaks monitored with new office cameras. Nikkei also reported that the Phantom Pain had exceeded a development cost of $80 million (Yin-Poole, 2015), a potential reason for Konami to lose patience with Kojima Productions, especially considering the limited monetization opportunities offered when working with single-player story-based games.

Metal Gear Solid V: The Phantom Pain was released for all platforms on September 1st, 2015. It sold 6 million units by January 2016, making it one of the best-selling *MGS* games of all time (Polanco, 2016). It received some criticism for its "unfinished" story, especially after it was revealed that a final mission was scrapped entirely.

Konami closed Konami Los Angeles Studio in November of 2015, before Kojima officially left the company on December 15th of 2015. Kojima Productions was closed as a result (Sarkar, 2015).

Present and Future of Kojima Productions

Immediately following the announcement of Kojima's departure, Sony released a statement announcing that Kojima and many of the former Konami employees who worked at Kojima Productions had reformed as an independent development studio. Sony had also announced a partnership with Kojima Productions to release a PlayStation exclusive title (McWhertor, 2015). This title was revealed at E3 2016 to be an open world game called *Death Stranding*. Guillermo Del Toro and Norman Reedus would allegedly collaborate with Kojima on the project following their cancelled collaboration on *Silent Hills*. Kojima Productions announced in 2016 that they would set up a satellite office in Amsterdam to develop *Death Stranding* with company Guerilla Games, as they were using Guerilla Games' Decima Engine to develop the upcoming game (Aernaut, 2016). *Death Stranding* is still in development.

-J. D., Spring 2019

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Krafton

Overview

Krafton is a South Korean game development and distribution holding company based in Bundang-gu, Seongnam. In November 2018, Krafton was founded by the company Bluehole Studio, a game developer founded by Chang Byung-gyu in Seoul, South Korea, in March 2007. The company is best known for its award-winning games *Tera* and *PlayerUnknown's Battleground*. Krafton was listed on the Korea Stock Exchange on August 10, 2021, with an estimated market capitalization of US$19.3billion (Kang 2021). As the parent company, Krafton is currently comprised of five subsidiaries: Bluehole Studio, PUBG Studios, Striking Distance Studios, Risewings, and Dreamotion Inc.

Founding and Creation of Krafton

The foundation of Krafton dates back to 2008, when Bluehole Studio's first subsidiary, Bluehole Interactive, later known as En Masse, was established in Seattle, Washington. The subsidiary recruited former employees from the game industry's leading companies, including NCsoft, Blizzard Entertainment, and Electronic Arts, and focused on developing massively multiplayer online games (Alexander 2010). In 2011, Bluehole Studio launched its first MMORPG *Tera*, which was considered a game that innovated the MMORPG genre by introducing the non-targeting combat system. *Tera* quickly gained over one million users after switching to a free-to-play system from a monthly subscription system in 2013 (Liebl 2013). *Tera*'s success allowed Bluehole Studio to acquire numerous game studios from 2014 to 2019, including L Time Games, Ginno Games, Squall, Pnix Games, and Delusion Studio. In 2015, Bluehole Studio changed its corporate name to Bluehole and served as its subsidiaries' holding company. In March 2017, the Bluehole's subsidiary, Bluehole Ginno Games, published *PlayerUnknown's Battlegrounds*, also known as *PUBG*. The game sold more than 10 million copies only six months after releasing the early access version on Steam (McAloon 2017). *PUBG*'s success in the global gaming market popularized the genre of battle royale and gained Tencent's attention, a technology conglomerate based in Shenzhen, China.

In September 2017, the founder Chang revealed to Bloomberg that Tencent had contacted Bluehole for a publishing agreement in China, though he declined to share investment details (Nakamura and Kim 2017). In August 2018, Bluehole announced its strategic partnership with Tencent as Tencent Holdings made a US$500 million deal with Bluehole and acquired 10% in Bluhole Inc, boosting Bluehole's value to US$5 billion compared to US$3.7 billion before the transaction (Ma, Roof and Chae 2018). Tencent's move of acquiring shares of the South Korean company was due to the increasing popularity of *PUBG* and battle royal games in 2018, viewing the genre as "one of the biggest opportunities to come along in the gaming industry in the past five years" (Ma, Roof and Chae 2018). Tencent Holdings' investment significantly increased

Bluhole's business value and propelled the establishment of the parent company Krafton. In November 2018, Krafton, also known as Krafton Game Union, was founded by Bluehole as the holding company to align its subsidiaries as a unified brand. In August 2021, Krafton was listed on the Korea Stock Exchange. Krafton raised US$3.8 billion in its debut, becoming the second-largest IPO ever listed on the Korea Stock Exchange (Lee 2021).

Subsidiaries

Founded in 2007, Bluehole Studio was the predecessor of Krafton and was one of the earliest innovators of massively multiplayer online role-playing games. The studio focuses on developing MMORPGs on PC and console, designing games including *Tera* and *Elyon*. In December 2020, Krafton made Bluehole Studio into an independent subsidiary to continue its development on MMORPGs (Valentine 2020).

PUBG Studios is an internal subsidiary of Krafton, previously known as Bluehole Ginno Games. In September 2017, Bluehole Ginno Games changed the corporate name to PUBG Corporation. In December 2020, PUBG corporation merged with the parent company Krafton and was renamed PUBG Studios (Krafton Inc.). It is known for developing *Player Unknown's Battlegrounds* and *PUBG: New State*.

RisingWings is one of Krafton's subsidiaries, focusing on mobile gaming development. The studio merged Delusion and Pnix in 2020 and was renamed RisingWings. Its popular games on the market include *Castle Craft: World War*, *Gold King: World Tour*, *Mini Golf King*, and *Bowing King*, all only available on mobile.

Founded in 2016 and acquired by Krafton in 2021, Dreamotion is a subsidiary focusing on developing mobile games. It has developed mobile games such as *Road to Valor: World War II* and *Ronin: The Last Samurai*.

Opened in June 2019, Striking Distance Studios is a new AAA development studio located in San Ramon, California (Jones 2019). Led by Glen Schofield, the former founder of Sledgehammer Games and the creator of *Dead Space*, the studio aims to launch its first AAA third-person survival horror game, *The Callisto Protocol*, in 2022. (Kim 2021).

Notable Games

Tera is a massively multiplayer online role-playing game developed by Bluehole Studio in January 2011. *Tera*'s non-targeting combat gameplay, where players have to manually target the enemy rather than launch an attack that automatically lands on the opponent, was considered an innovation in the MMORPG genre. *Tera* has won four categories at the 2011 Korean Game Awards, including the Grand Award and Technical Creativity Awards. By 2021, *Tera* has

accumulated more than 20 million users, with the PC platform serviced with worldwide availability (Krafton Inc.).

PlayerUnknown's Battlegrounds is a multiplayer battle royale game developed by PUBG Studios in March 2017. The Creative Director of the game, Brendan Greene, is considered one of the creators of the battle royale genre, which highlights the last-man-standing gameplay where a hundred players compete for the final victory. *PUBG* made over US$11 million in revenue after three days of releasing the early access version on Steam (Kerr 2017). In 2018, PUBG Studios licensed Tencent's subsidiary LightSpeed & Quantum Studio to develop *PlayerUnknown's Battlegrounds Mobile*, which was published as a free-to-play first-person shooter game with the same battle royale mod as *PUBG*'s PC and Console version. By 2021, *PUBG Mobile* accumulated more than 1 billion downloads on Android Market and Apple App Store, generating a total revenue of US$5.1 billion as of August 2021 (Chapple 2021). As one of the most popular battle royale games in the market, *PUBG* accounted for 97% of Krafton's sales in 2020 (Wong 2021). In 2021, *PUBG* had more than 70 million accumulated downloads, with more than three million concurrent users on PC at peak (Krafton Inc.).

Current Development

On November 11, 2021, PUBG Studios released *PUBG: New State*, a mobile battle royal game. As the sequel of *PUBG* and *PUBG mobile*, *PUBG: New State* also sets in the PUBG Universe, aiming to recreate the original *PUBG* PC experience for mobile users. As a Krafton in-house game, *PUBG: New State* has accumulated more than 55 million pre-registrations with over 40 million downloads after two weeks of release (Krafton Inc.).

Krafton plans to expand its PUBG universe and the company IP continually. Other than Striking Distance's 2022 survival horror game, *The Callisto Protocol*, Krafton acquired Unknown Worlds Entertainment in October 2021 as an independent studio based in San Francisco. The studio is currently designing a "genre-defining game" slated for release in 2022 (Romano 2021). Based on Krafton's future roadmap, a series of graphic novels, web novels, short animation, and TV series will be introduced to propel the diversification and expansion of the PUBG universe, sustaining its global success in the game industry (Majumdar 2021).

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Luckbox

Overview

Luckbox ("the Company" or "the platform") is an esports betting platform that allows users to wager real money, watch live streams, and access statistics on all major esports events. The Business-to-Consumer (B2C) and Business-to-Business (B2B) platform leverages data analytics and shared technology to offer extensive betting options for esports tournaments on desktop and mobile devices. The platform can be accessed via www.luckbox.com for desktop and iOS or Android app stores. Luckbox experienced a 500% growth in 2020, which was consistent with the industry-wide increase in esports betting due to the pause in traditional sports during the Covid-19 pandemic (Gaming Street Staff 2020).

Founded in 2016 and headquartered on the Isle of Man, Luckbox facilitates real-money betting on 13 PC and mobile esports in more than 80 territories. These titles include *CS:GO, League of Legends, Dota 2, Overwatch, Rainbow Six, CoD, Honour of Kings, Starcraft I and II, Rocket League, Hearthstone, Warcraft III, and Valorant*. The Company operates under Real Luck Group (TSXV:LUCK), a publicly listed investment group that trades on the TSX Venture Exchange in Canada. In December 2020, Luckbox became the second publicly-listed esports betting company after Esports Entertainment Group (Taylor 2020). "Management comes with exceptional pedigree in both esports and betting, holding previous leadership positions at Pokerstars (TSX: TSGI), 888 (LSE: 888), Disney (NYSE: DIS), Zynga (NASDAQ: ZNGA), and Electronic Arts (NASDAQ: EA); this brings expertise and increased regulatory compliance that the esports space has been widely lacking" (Martin 2021).

Licensing and Responsible Betting

Esports betting uses similar licensing and infrastructure as the traditional sports betting industry. Luckbox holds a full license for B2C and B2B esports & sports betting issued by the Isle of Man Gaming Supervision Commission under the Online Gambling Regulation Act (OGRA). The license centers around "enforcing customer verification, anti-money laundering, combating financing terrorism, cybersecurity, player protections, and responsible gaming" (Martin 2021). Esports betting benefits from industry trends while remaining game and publisher agnostic, and therefore resistant to title-specific popularity shifts (Ibid, 8). Full licensing allows Luckbox to employ marketing strategies just like the major companies in the industry, accelerate global expansion, and sell their product on app stores. The platform adheres to the highest levels of gambling regulation to build consumer trust and ensure legitimate, secure payment processes.

Luckbox is committed to supporting responsible gambling, given the ubiquity and convenience of mobile devices increase the chances of gambling addiction. Users have the option to set deposit, betting, and loss limits for a predetermined period. The betting minimum is set to one

currency unit (i.e GBP, CAD); however, there is no maximum betting limit since pre-game and real-time wagers increase significantly for major tournaments. Luckbox also gives users the option to self-exclude from the platform for periods ranging from 1 week to 1 year, where users cannot log in until the period has expired. Furthermore, in October 2018, “Luckbox is the latest esports betting operator to join the Esports Integrity Coalition (ESIC), a non-profit designed to tackle cheating and corruption in esports” (Ashton 2018).

Membership and Platform Features

Individuals 18+ years of age can create an account free of charge. According to the Isle of Man Gambling Supervision Commission's rules, users must satisfy the "Know Your Customer" identification process by verifying the identity and residential access linked to the account. Users in territories with regulated gambling can access live streams and statistics on PC or mobile while making pre-game or real-time bets on various outcomes with fixed odds. The platform standardizes betting odds by setting them in decimals (European odds or continental odds) for easy comparisons. "Luckbox's proprietary betting platform currently includes the whole value chain for betting services except odds creation, which is the only function operated through third-party companies" (Yi 2021). Users in unregulated territories like the US cannot participate in bets, but they can access statistics and live streams, preserving the open-source and free characteristic of e-sports live streaming. Luckbox's core brand values center around the "Watch, Learn, Chat, and Bet" model (Bray 2018). The platform achieves this by offering high-quality streaming experiences in six languages (English, German, Russian, Spanish, Portuguese, and "simplified Chinese) and chat streams where users and team members can share their opinions and show support. Luckbox also provides accurate and frequently updated statistics (including rosters, team and player performance, game results) and live odds tailored to each event.

Most wagers on the platform are built around the idea of selecting the correct *Match Winner*. Esports betting markets include *Map Winners, Totals, First Blood, Map Advantage, Correct Score*, and more. Furthermore, users can bet on Future or Outright Winner, which are bets for winning an entire tournament. Each game will have different betting markets. For instance, *CS:GO* focuses more on rounds, and *Dota 2* counts kills. The live wagers embedded within the game provide more flexible betting experiences where users can set their patterns and pick options as the game progresses.

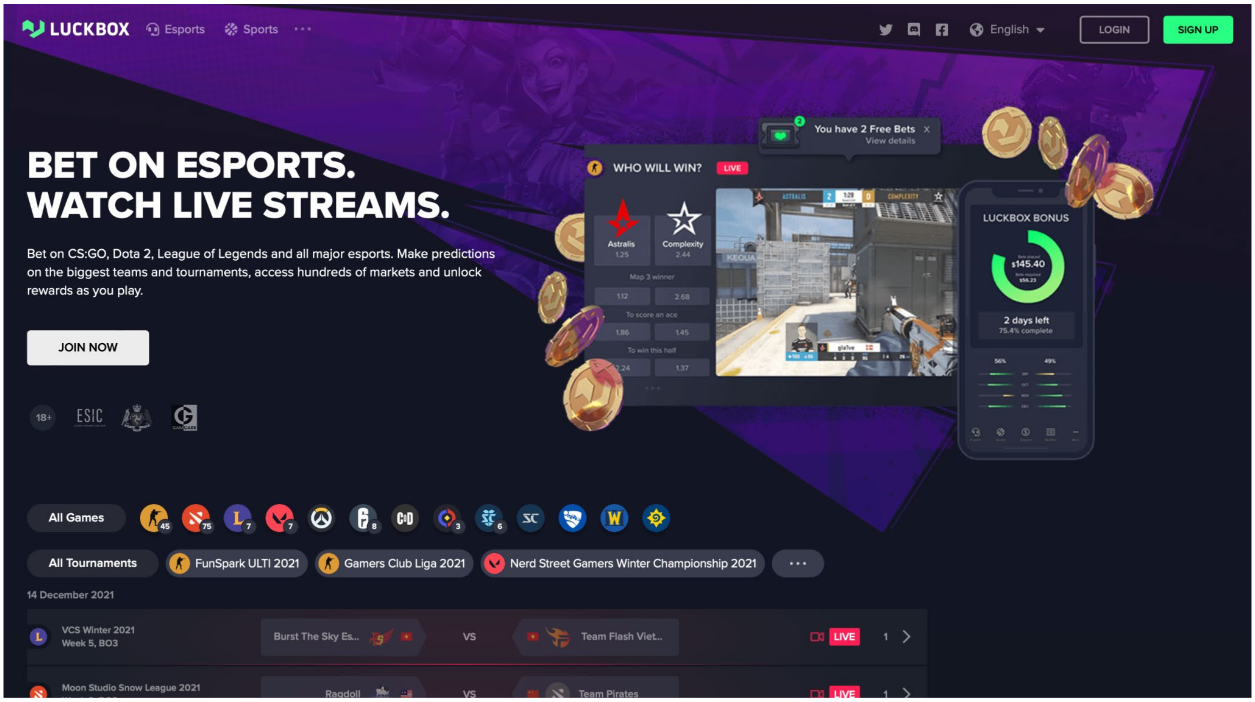

Figure 1: Screen capture of Luckbox website as of December 14, 2021

Monetization Scheme

The platform is free and it lets users trade cryptocurrency and real money. Users can make deposits to LuckBox using a debit, credit card, or wire transfer. LuckBox's B2B model and legitimacy come into play by connecting users to secure payment services like ecoPayz, Jeton, MuchBetter, Neteller, Paysafecard, Trustly, SafetyPay, Skrill, Sofort-Uberweisung, QIWI Wallet, CryptoPay, and AstroPay Card. While the platform doesn't have a loyalty program or a premium service, it occasionally offers bonuses to valued customers like a $100 Welcome Bonus. The platform makes money by "consistently hitting a five percent margin (meaning the company earns five percent revenue on every bet placed with the company)" (Studholme 2020). However, LuckBox's profits and gross margins are tight due to high administrative, research, marketing, and legal expenses and the cost of paying back winning bets.

Opportunities and Challenges

In their Q1 2021 Investor presentation, Luckbox announced that they plan to consolidate their business and develop in-house functions. The former CEO Quentin Martin states, "As far as odds creation being done in-house, we have plans. We just haven't brought them into fruition yet. And all of these developments nudge our business towards B2B. We want to provide the gaming industry with valuable data" (Martin 2021). Since its conception, Luckbox has proved its effectiveness in attracting customers at a low cost. Luckbox has amassed over 18,000+ registered emails, 10,000+ Discord users, and 10,000+ Twitter followers (Ibid, 19) with virtually no ad-spend. As a result, the platform intends to invest around $2 million into content marketing, partnerships, influencer marketing, and direct media.

The Federal Wire Act of 1961 presents challenges for Luckbox and other online gambling companies. This law prohibits certain types of betting and prevents major markets like the United States from having uniform regulations. As a result, the regulatory framework for online betting overlooks illegal offshore gambling, and lets States decide at their discretion. Luckbox finds itself uncertain because the Company has to make informed decisions about what US markets to invest resources. Martin explains, "There are many states where it's too complicated, too expensive, the population is too small, so we'd start with New Jersey. We like Colorado. It amazes me that some states have decided to treat eSports as different from traditional sports. It shows a complete lack of understanding as to what eSports are" (Helling 2020).

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Loot Boxes

Overview

A loot box, or loot crate, is a virtual container in video games which rewards the player with randomized in-game items. What the players can get by opening the box is based on chance, but the items are usually ranked, and players have a smaller chance to get rarer items. There are mainly two types of rewards in loot boxes: 1) game enhancement items that can make players be more powerful in game play, such as weapons with higher damages and enhanced characters which can empower the players and lessen the time they invest in the game; 2) purely cosmetic items which do not affect overall game balance, for example “skins” for customizing weapons or characters’ appearances.

Loot boxes can be acquired through: 1) game play when the players have a chance to get free loot boxes dropped by the system; 2) in-game purchases, through which the players pay money to get loot boxes directly; 3) trade among players: using the open trading system either provided by the game or by third party, players can exchange unopened boxes.

Loot Boxes’ Brief History

The first adoption of loot box in video games is a Chinese massively multiplayer online role-playing game *ZT (Zhengtu) Online* which was released early in 2006. The game was free-to play, and the players “would only be charged if they wanted better game weapons or costumes” by buying “treasure boxes”. The game was very successful; it had more than 1 million players in the peak hour by May 2007, which made it the second popular game in China at the time (Sherman & Christopher, 2010) and generating a monthly revenue of $160 million (Koo, 2007). Similar strategies were used in gaming on social media sites like MySpace and Facebook, and then also adopted by mobile gaming with the development of smartphones.

Later, more traditional game publishers incorporated microtransactions which included loot box system into their games, notably *Valve*’s *Team Fortress 2* in 2007 in which players can purchase keys to open random crates, the “ultimate team” mode in *FIFA*series from *EA*, and many others. Because of these continuous income from microtransactions, the game publishers are able to introduce and scale up the free-to-play game mode and frequent updates and DLCs in AAA games.

Loot Box Monetization

The sale of loot boxes to players through microtransactions is currently an important monetization technique in video game industry. Loot box system now being a hot trend and one of the major revenue generators in video game industry reflects that the industry is shifting from a fixed-price initial sale to a more long-term income and service-based model. It is hard to find

specific number on exact sale of loot boxes; however, recent reports and financial data show importance of microtransactions to game studios and publishers in which loot box monetization is playing a crucial role, especially for AAA and F2P games. *Activision Blizzard*, an American video game publisher, released a multiplayer first-person shooter game *Overwatch* in 2016 which has introduced a highly visible loot system. The loot box system in *Overwatch* received a majority of positive feedbacks from fans and experts (Statt, 2017). Aside from a $40 initial game purchase, *Overwatch* requires no further payment for additional game contents and updates frequently with free DLCs. Loot boxes are the major source of the game's income, earning *Blizzard* over $1 billion in less than a year after its release (Donnelly, 2017). According to the official financial report of 2017 of *Blizzard*, the company generated about $4 billion from in-game transactions in 2017, which is over half of its total revenue of that year ("Activision Blizzard Financial Results," 2018); and this amount included traditional in-game purchases, bookings and importantly, loot boxes. Many other large corporations are also using the loot box system for a significant and sustainable revenue. For example, *Valve*'s most popular multiplayer first-person shooter *Counter Strike: Global Offensive* and the free-to-play multiplayer online battle arena game *Dota2* both feature important loot box systems, each generating $341 million ("CS:GO Revenue Worldwide," 2018) and $406 million worldwide in 2017 ("Revenue Generated by Dota2 Worldwide," 2018).

In a recent report conducted by *Juniper Research*, a researching and consulting company for technology markets, the total spend on loot boxes and skins is forecasted as will be reaching $50 billion in 2022 ("In Game Gambing~The Next Cash Cow," n.d.) and therefore driving the games market, which is currently $117 billion, to $160 billion by then (Batchelor, 2018).Though these statistics are not considered to be entirely accurate, it is clear that the video game industry is viewing loot box system as an increasingly profitable form of monetization.

Controversies and Regulations

However, amidst of games alluring players to buy loot boxes and generating big revenues, the effects on game experience they bring into the game, such as unbalance and their "pay-to-win" scheme can also influence players' attitudes and responses. *Star Wars Battlefront 2* by *Electronic Arts* had been criticized by encouraging players to "pay real money [for loot boxes] for access to enhancement and major characters that would otherwise take dozens of hours to unlock by playing the game." (Gilbert, 2018) *EA* then apologized and deleted the loot box system in *Star Wars Battlefront 2* (Electronic Arts, n.d.).

Additionally, since "the contents of loot boxes are randomly determined and the total value of the items may, or may not, exceed the price paid to open the case," and therefore they are analogues of lottery scratch cards (Macey & Hamari, 2018), loot box system is widely considered similar to gambling. Thus, loot boxes are gaining more attention in the society,

especially when more younger players are involved and spending a large amount of money on them.

In response to such concerns, some of the self-regulatory organizations within the video game industry have issued self-regulatory guidelines for loot boxes. For example, according to "Guidelines of description for business providing random items" by Japan Online Game Association, game publishers are required to list out all possible rewards in a loot box and the drop rates (JOGA, 2016). However, the video game industry generally does not recognize the loot box system as a type of gambling, thus only with self-regulatory guidelines the publishers themselves cannot functionally regulate loot boxes unless forced by law (Hood, 2017). Hence, regulations by government are also getting tighter in recent years. The Ministry of Culture in China announced new regulation to force video game publishers to reveal the odds of receiving each item from a loot box starting from May 2017 (Gartenberg, 2017), and many game publishers like *Riot*, *Perfect World* and *Blizzard* have revealed the required data for their most popular titles in order to increase transparency (Chalk, 2017).Taking a step further, Belgium declared loot boxes to be illegal in April 2018 (Gerken, 2018), and a number of game publishers like *Blizzard* and *Square Enix* have either locked loot box contents in their games or removed games entirely in that region (Hern, 2018).

-K.Z., Fall 2018

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Machinima, Inc.

Overview

Machinima Inc., founded by Hugh Hancock in January 2000, was a leading online entertainment platform known for its website, Machinima.com, and its YouTube channel, Machinima. The company, headquartered in Los Angeles, California, was renowned for its gaming-focused content, original shows, and short films (Tola). Initially, Machinima.com served as a platform for creators to share “machinima”, a unique animation style using game engines (“About”). Over time, it broadened its focus to include a variety of gamer-related content, such as comic books, video games, esports, and nerd culture.

Warner Bros. acquired Machinima in 2016 for about $100 million (Munson). After AT&T's 2018 acquisition of Warner Media, Machinima merged with Otter Media. However, facing re-organization issues, Machinima privatized its YouTube channels in January 2019. A month later, the company ceased operations, laying off all employees and shutting down its website due to challenges in adapting to the changing online content landscape (Kaska).

Machine Cinema & Machinima.com

Hugh Hancock, a pioneer in machinima animation, founded Machinima.com in January 2000 as an effort to revitalize the machinima community (“About”). Before Machinima.com, Hancock had established The Strange Company in 1997. This innovative group of creators produced content using games like Quake and Quake II. However, the release of Quake III Arena in December 1999 introduced challenges due to id Software’s stringent code disclosure policies (Byrd).

Machinima.com initially met with resistance but gained popularity following the success of “Quad God,” a distinguished machinima film. The platform’s influence grew as it adopted other game engines, such as Unreal Tournament, reinforcing its status as a preferred platform for emerging machinima productions (Byrd). On January 30, 2006, Hancock stepped down as the editor-in-chief of Machinima.com, and the site’s control was handed over to the Machinima staff.

Multi-Channel Network

In 2010, Machinima underwent a significant transformation, modernizing its website and integrating with Facebook. The company shifted its focus from machinima animation to gaming-centric content and entertainment, primarily through its YouTube channel and collaborations with online gaming creators. During YouTube’s early years, monetizing content was a challenge for individual creators due to contractual requirements. Multi-channel networks emerged as a viable solution, acting as intermediaries between the creator and YouTube (Kaska). They handled paperwork and assisted with marketing efforts, enabling creators to monetize their content more effectively. Machinima’s channel stood out as one of the first multi-channel networks to monetize gaming, additionally, they offered a very low barrier of entry for content creators allowing for numerous channels to participate on their platform.

Expansion

Between 2009 and 2015, Machinima experienced substantial growth, diversifying its content offerings across various media outlets. These included "Inside Gaming," an editorial brand, "ETC News," an entertainment news show covering entertainment, technology, and culture, "Machinima Live," a live streaming channel on Twitch, "Machinima VS," dedicated to esports, "Machinima Respawn," focused on gameplay on YouTube, and "Realm Games," a channel centered around MMO and RTS gaming("Machinima-Youtube"). Machinima also produced numerous original series of high production value such as "Terminator Salvation: The Machinima Series," "Mortal Kombat: Legacy," "Bite Me," "Justice League: Gods and Monsters Chronicles," "Happy Hour," and "Battlefield Friends"(Graser). These initiatives often involved collaborations with major entities like Warner Bros, Microsoft, and Capcom.

The pivotal year 2012 marked a significant milestone for Machinima, marked by partnerships with Meteor Entertainment and Microsoft, resulting in the incorporation of Machinima programming on Xbox Live. Notably, in May 2012, Google injected $35 million into Machinima Inc., solidifying its financial standing (Tassi). This strategic infusion contributed to Machinima's rise in YouTube's subscriber rankings, reaching fourth place with over 5 million subscribers. The company's subscriber count eventually soared to an all-time high of 12 million in 2018, underscoring its prominence in the digital content landscape.

Warner Brothers

Warner Bros. strategically strengthened its position in the digital content landscape by making substantial investments in Machinima in 2014 and 2015. Warner Bros. initially became a major investor in Machinima in 2014, infusing the company with $18 million. This was followed by an additional investment of $24 million in February 2015 (Jarvey). These financial contributions were aimed at accelerating Machinima's growth and cementing its place in the competitive digital media industry.

The partnership between the two companies culminated on November 17, 2016, when Warner Bros. acquired Machinima and its brand properties. Although the terms of the deal were not disclosed, it was estimated to be around $100 million (Munson). This acquisition signified a significant alignment of interests between Warner Bros. and Machinima, demonstrating the entertainment giant's commitment to expanding its influence in the rapidly evolving digital content market.

Partnership Criticism

Machinima Inc. encountered significant criticism, primarily focused on its Multi-Channel Network (MCN) system and the alleged issues surrounding perpetual contracts. With a partnership base of over 5,000 channels (Kaska), predominantly young gamers and internet creators, Machinima was reportedly criticized for establishing contracts that gave the company extensive ownership rights and a large share of creators' profits, which some viewed as disproportionate to the returns they received(Tassi). This perceived imbalance of power and lack

of contract transparency drew considerable criticism from the online creator community, particularly between 2013 and 2014.

During this period, Machinima faced backlash as several YouTubers publicly criticized the network for its lack of transparency with its partners (Stuart). Complaints included Machinima placing advertisements on partners' channels without their consent, which raised concerns about autonomy and control over content for individual creators (Tola). Furthermore, in 2015, Machinima came under scrutiny for allegations of paying YouTube video partners to endorse Microsoft's Xbox One system, a practice that many creators reportedly failed to disclose (Yin-Poole). This raised ethical concerns within the online content creation community and led to further questioning of Machinima's practices and relationships with its content creators.

Ceasing Operations

In 2018, Machinima Inc. experienced a significant transformation following its integration into Warner Bros. Digital Networks (Spangler). The company unveiled a new logo and shifted away from the multi-channel network model, aiming to refocus on game-centric content. However, the corporate landscape changed dramatically when Time Warner, Warner Bros.' parent company, was acquired by AT&T. This led to the reorganization of Machinima under Otter Media, which owned similar gaming production channels and multi-channel networks such as Fullscreen and Rooster Teeth. In November 2018, reports outlined AT&T's plans to restructure Machinima into Otter Media, leading to a 10% reduction in Machinima's workforce (Spangler).

The culmination of these changes occurred on January 18, 2019, when all content on Machinima's YouTube channels was abruptly set to private. This strategic reorganization positioned Machinima as a unit of Fullscreen and was part of a broader strategy under AT&T's ownership to consolidate digital assets. This marked a significant turning point for Machinima. On February 1, 2019, the company officially announced its closure, resulting in the layoff of 81 employees (Kaska). While some employees transitioned to work for Otter Media, Machinima ceased operations. Notably, certain Machinima series and shows found a new home under Rooster Teeth. In 2022, prominent online creator Cr1TiKal expressed interest in acquiring Machinima, indicating the ongoing nostalgia and influence associated with the brand (White Jr.).

-E.W, Fall 2023

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Microsoft, Activision Acquisition

Overview

In a landmark deal that reshaped the landscape of the gaming and tech industries, Microsoft announced its acquisition of Activision Blizzard, a prominent video game company known for popular franchises like *Call of Duty*, *World of Warcraft*, and *Overwatch* (Javeed 2022). This acquisition, the largest purchase ever for a U.S. technology company, signaled Microsoft's continued push into the gaming market and raised significant regulatory and market concentration concerns (Novet 2022).

Acquisition Announcement

On January 18th, 2022 Microsoft declared its intention to acquire Activision Blizzard for approximately $68.7 billion, offering $95.00 per share, a premium over Activision's share price at the time (Novet 2022; Javeed 2022). However, a regulatory filing made it evident that the two parties began discussions in November 2021. On November 16th, 2021, the Wall Street Journal reported that Activision Blizzard CEO Bobby Kotick had known for years about alleged cases of sexual assault at the company. Soon after on November 18th, Microsoft's head of gaming Phil Spencer addressed the issue internally and with Kotick himself on November 19th, telling Kotick that Microsoft wanted to discuss strategic opportunities for the two companies. Activision Blizzard's stock fell 11% just four days after the Wall Street Journal story was released and on this same day, November 20th, Microsoft CEO Satya Nadella introduced the possibility of an acquisition to Kotick. The original offer on November 26th valued each share of Activision Blizzard at $80.00. Although Kotick engaged with other companies for acquisition offers, the two parties eventually agreed to the $95.00 per share figure (Novet 2022).

Regulatory Pushback

Given the substantial size of the acquisition, multiple government commerce authorities needed to review the deal to address potential antitrust issues. Several commerce authorities from multiple countries reviewed the acquisition. Microsoft received much of its regulatory pushback from the Federal Trade Commission (FTC), the European Commission of the European Union, and the United Kingdom's Competition and Markets Authority (CMA).

In the United States, the Microsoft Activision Blizzard acquisition was reviewed by the FTC. Senators Warren, Sanders, Whitehouse, and Booker raised worker rights concerns to the FTC, arguing the merger should be opposed if it increased monopoly power (Carpenter 2022). The FTC intended to block the deal on December 8, 2022, fearing it would harm consumers and give Microsoft excessive industry control. They cited Microsoft's alleged breach of a commitment made to the EU regarding their acquisition of ZeniMax. Microsoft countered, noting Sony's exclusivity practices and affirming their intention to keep certain Bethesda multiplayer games on all platforms (Zakrzewski 2022). The FTC sought to block the merger on June 12th, 2023 and although a temporary restraining order was granted a day later, Judge Corley denied a permanent injunction on July 11th, 2023, finding no substantial threat to competition (Bankurst and Lyles 2023; Peters 2023; Warren 2023). The FTC appealed Corley's decision but the Ninth Circuit denied their emergency appeal. The FTC withdrew its challenge on July 20, 2023, but reopened

the case on September 27, 2023, without blocking the merger (Yin-Poole 2023; Peters and Warren 2023).

On September 30, 2022, the European Commission began reviewing Microsoft's acquisition of Activision under EU merger law (Tolbert 2022). They surveyed industry firms about potential impacts, including the possibility of Microsoft restricting access to Activision games (Chee 2022). On November 8, 2022, the Commission initiated an additional review, focusing on maintaining a vibrant gaming ecosystem (Casert and Brien 2022). The EC expressed concerns on February 3, 2023, about Microsoft potentially limiting access to Activision's *Call of Duty*, potentially reducing competition and leading to higher prices and less innovation. Microsoft responded by securing ten-year agreements with Nintendo and Nvidia to distribute *Call of Duty* (Harrington 2023). The Commission approved the acquisition on May 15, 2023, after Microsoft made concessions for cloud gaming services growth and dismissed exclusivity concerns, citing Microsoft's financial incentives and Sony's competitive capacity (Phillips 2023).

In August 2022, the UK's Competition and Markets Authority (CMA) began a detailed review of Microsoft's Activision Blizzard acquisition, citing competition concerns (Brien and Chan 2022). By February 2023, the CMA identified potential risks of higher prices and less innovation for UK gamers (Cryer 2023). Although initially recommending divesting *Call of Duty*, the CMA changed its stance in March 2023 following Microsoft's ten-year multi-platform release commitment for the game (Nightingale 2023). Despite this, the CMA formally opposed the merger on April 26th, 2023, skeptical of Microsoft's cloud gaming dominance and its commitments (Gerken 2023). In August 2023, Microsoft planned to sell Activision Blizzard's game streaming rights to Ubisoft for 15 years, contingent on merger completion, which addressed the CMA's concerns (Nylen et al. 2023). This led to provisional approval in September and final approval on October 13, 2023. This final approval allowed Microsoft to close the acquisition deal (Kennedy 2023).

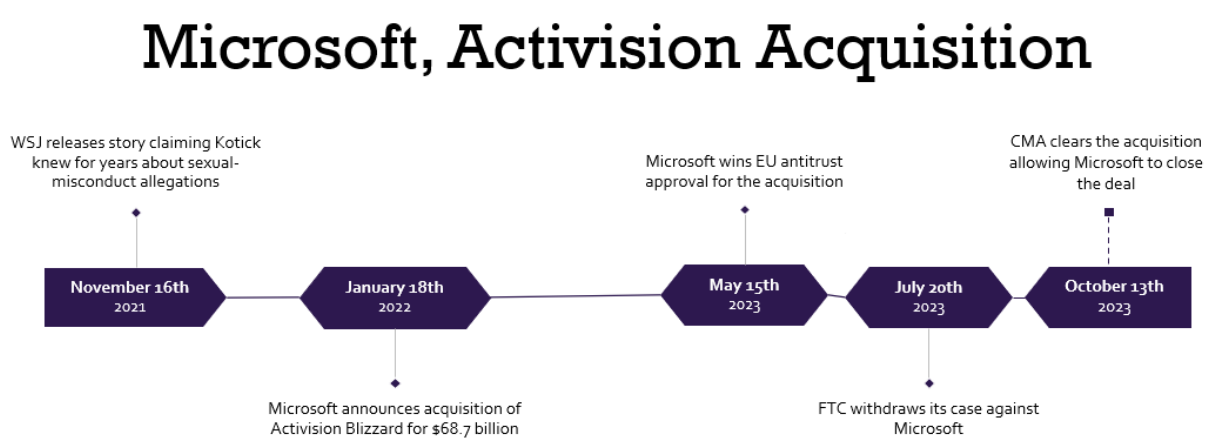

Figure 1: This timeline created on Microsoft PowerPoint provides a list of the major events in the acquisition

Outcome

The acquisition deal, officially approved by the US government and other various governments, makes Microsoft the third largest gaming company in the world by revenue behind Tencent and Sony (Howley 2023). Despite Microsoft's acquisition, existing agreements ensure that popular games like *Call of Duty*, *Overwatch 2*, and *Diablo 4* remain accessible on multiple platforms until those contracts expire. Microsoft has also committed to continuing the availability of these games on PlayStation beyond the contract durations. This commitment extends to Ubisoft's platform, ensuring continued access to Blizzard and Activision titles there, with the exception of the EU. The potential exclusivity of these multi-platform games to Microsoft's consoles is another critical aspect. A significant portion of the consumer base for these games, notably from franchises like *Overwatch*, comes from PlayStation 5 and Nintendo Switch users. Given this, it's unlikely that Microsoft would risk the revenue loss associated with making these games exclusive to Xbox and Windows PC. While new games from Activision Blizzard could be developed as exclusives for these platforms in the future, existing and popular series are expected to maintain their multi-platform status (D'Amato 2023).

The acquisition will also make Microsoft a major player in the mobile gaming industry. The significance of this move is underscored by the mobile gaming market's scale, which, at $103 billion, surpasses both the console ($43 billion) and PC gaming ($40 billion) markets. A key factor in Microsoft's newfound prominence is Activision Blizzard's *Candy Crush Saga*, the second-highest-grossing mobile game globally in the first half of 2023, only behind Tencent's *Honor of Kings*. Moreover, Activision Blizzard's King mobile division boasted 238 million monthly active users in Q2 2023, exceeding Activision's 92 million and Blizzard's 26 million users. This expansion into mobile gaming also enhances Microsoft's position in mobile advertising, as Candy Crush generates revenue through both in-game sales and advertising (Howley 2023).

Additionally, Microsoft will now be in the esports market with esports properties that include *Overwatch*, *Call of Duty*, and Major League Gaming (Šimić 2023). Through the end of 2023, Bobby Kotick, who has been CEO of Activision Blizzard since 1991, will remain at the company but will report to Phil Spencer (Parrish 2023).

J.F., Fall 2023

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miHoYo Co., Ltd.

Overview

miHoYo Co., Ltd. is an independent Chinese video game development and publishing company based in Shanghai, which was originally founded in 2011. Including its domestic and global offices, miHoYo has approximately five thousand employees currently; in 2022, it generated a gross revenue of $3.8 billion and a net revenue of $2.2 billion.

The company is responsible for the continued development of its well-known mobile and PC gaming titles such as *Honkai Impact 3rd*, *Genshin Impact*, and *Honkai: Star Rail*. In 2020, *Genshin Impact* became the largest international launch of a Chinese video game in history—garnering $1 billion in revenue in its first six months as well as winning *Best Mobile Game* at the 2021 Game Awards.

Early History & Rebranding

"Tech Otakus Save the World" is a motto coined by miHoYo's founders, who started the company as "three Shanghai Jiaotong University graduate students who shared a passion for technology and ACG culture" (miHoYo 2020). Despite having their earliest titles rejected by other game developers, the triad of Liu Wei, Cai Haoyu, and Luo Yuhao, independently built and invested their own resources to release the games they wished to develop; such titles included *FlyMe2TheMoon* and *Zombiegal Kawaii*. Having developed a valuation in the millions, miHoYo evolved and became the producer of successful games such as *Guns Girl Z (Honkai Academy 2)*, *Honkai Impact 3rd*, and their most profitable product to date, *Genshin Impact*.

In 2022, miHoYo announced its decision to rebrand itself as Hoyoverse internationally, including rebranding their global subsidiary, known as Cognosphere Pte., Ltd. under the same name. Based in Singapore and various overseas offices, their subsidiary is responsible for most of miHoYo's global business operations as well as its technological research development, entertainment content, and publishing duties.

In a memo, the company outlined their growing commitment to globalization and venturing beyond the general scope of video games—expanding their entertainment spectrum to include newer technologies and content mediums in order to provide more immersive experiences for domestic and global audiences alike.

Revenue Structure

Across its game portfolio, miHoYo strategically employs the freemium model commonly found in free-to-play Gacha games—a monetization approach which relies on microtransactions,

enabling players to purchase in-game currency bundles and battle passes, thereby generating direct profits for the company.

Fundamentally, the gacha mechanic, pervasive in miHoYo's games, incentivizes players to use in-game currency, obtained through gameplay or real-world transactions (microtransactions), to secure random in-game units like collectible characters or items. However, the temporal limitations on unit availability create a sense of urgency, prompting players to spend or engage the mechanic during specific time frames.

Consistent with standard industry norm, each successive patch update adheres to the gacha mechanic schedule, presenting fresh opportunities for players to expend in-game currencies on exclusive collectibles. This cyclic structure both sustains player engagement and aligns with miHoYo's overarching monetization strategy, ensuring a continuous flow of revenue through the appeal of limited-time offerings and new content.

As a whole, miHoYo's financial success stands as a testament to the effectiveness of its monetization strategies. As of the end of 2022, its blockbuster game *Genshin Impact* has become one of the highest-grossing mobile games of all time, exceeding over $4 billion in revenue alone. Likewise, *Honkai: Star Rail*, which debuted in early 2023, became one of the highest-grossing mobile games of the year—earning $500 million in just its first three months of release. miHoYo's shares further reflect the success of *Honkai: Star Rail*, with Sensor Tower data indicating that between January 1st and April 25th, 2023, 90% of HoYoVerse's revenue originated from *Genshin Impact*, but from April 26th to July 31st, 2023, *Honkai: Star Rail* instead accounted for 64% of the revenue, with *Genshin Impact* and *Honkai Impact 3rd* accounting for 30.6% and 2.8% of the revenue respectively.

This breakthrough has propelled miHoYo into the echelons of China's premier game developers, placing it alongside other industry giants such as Tencent and NetEase. The company's financial achievements have not only solidified its position as a major player in the Chinese gaming industry, but also underscored its significant influence and contribution to China's flourishing gaming sector on the global stage.

Developing IP: Honkai, Genshin, etc.

Having firstly gained prominence with its progression of titles including *Honkai Academy*, *Honkai Academy 2*, and *Honkai Impact 3rd*, the *Honkai* series—characterized by its action-packed gameplay and anime-style graphics—played a crucial role in establishing miHoY's initial reputation in the gaming industry. Though recognizing the need for diversification and aiming to explore new horizons, concerns arose about the sustainability of relying solely on the success of the *Honkai* series going forward.

This vision ultimately materialized in the form of *Genshin Impact*, a highly ambitious action role-playing game that boasted an expansive open-world and variety of gameplay. *Genshin*'s release in 2020 marked a departure from its typical formula with the *Honkai* series, however, both during and after its release, controversy ensued as many drew parallels between the game and Nintendo's *The Legend of Zelda: Breath of the Wild*. Allegations of plagiarism continued to persist, questioning the originality of *Genshin*'s design and gameplay mechanics—all of which sparked backlash and put miHoYo in a challenging position as it sought to defend its creative integrity.

At Genshin Impact FES 2023, miHoYo's CEO, Liu Wei, acknowledged the struggles the development team faced amid these allegations and expressed the company's commitment to proving the potential and uniqueness of their intellectual property. He reaffirmed miHoYo's vision of differentiating themselves in the industry, highlighting the innovative aspects of *Genshin Impact* that set it apart from other titles. Despite all this, *Genshin* still won first place in the Ministry of China's National Top 10 IP Campaign in 2021, with *Honkai Impact 3rd* placing third.

Going Beyond: Marketing, Collaborations & Fandom

Using a mix of on-and-offline approaches, miHoYo has developed a highly interactive omnichannel marketing strategy for its games. For one, the company employs drip marketing strategies on social media, utilizing live streams, demos, and trailers to gradually unveil information and sustain player engagement. Gamified web events accessible through HoyoLab elevate its seamless promotional campaigns, which also grants players rewards for participating. In addition to targeted advertising with promotional rewards, miHoYo ventures into the physical realm with public pop-up events, temporary merchandising stores, mini-exhibitions, convention booths, and even concerts, providing tangible, memorable experiences for fans.

Furthermore, the company strategically collaborates with other developers and companies, exemplified by their collaboration with Guerrilla Games for *Zero Horizon Dawn*, introducing the character Aloy into one of their games. These collaborations bring popular content to their games while expanding their audience through cross-promotion. Beyond gaming, miHoYo cultivates diversified entertainment content based on its intellectual property, including its highly anticipated anime adaptation with Ufotable, as well as publishing official webtoons, and sponsored anthologies. This multi-format approach ensures its IP reaches audiences across various media avenues.

Additionally, miHoYo actively engages with its own community through initiatives such as the Hoyoverse Creators Program. This program provides official certification, traffic support, event rewards, creative training services, and opportunities for promotion and monetization for content creators within the community, establishing a symbiotic relationship between the company and

its fans. Additionally, the annual fan-led content initiative, Hoyofair, sponsored by miHoYo, serves as a platform for collaborations between known content creators in the fandom sphere, celebrating the creativity and passion of the fanbase. All in all, this holistic approach to marketing and community engagement significantly benefits miHoYo, fostering a dynamic and interactive relationship with its audience.

— P.M., Fall 2023

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MOBA [Multiplayer Online Battle Arena] (Genre)

Overview

Multiplayer Online Battle Arena (MOBA) is a subgenre that falls under strategy game category with mixed elements of action, role-playing, and real-time strategy. MOBA games center on two teams competing against each other to destroy the enemy's base structure. MOBA games have great economic value both within and out of the game industry: it reaches a $300 million monthly revenue with a F2P monetization model (Beach 2022), along with its big share in Esports, long-lasting leadership in live streaming, and its potential as an impactful IP to be forged into derivatives.

Video games under this genre include *League of Legends (LoL)* by Riot Games (October 2009), *DotA2* by Valve (July 2013), and *Honor of King* by Timi Studio Group (November 2015).

Game Elements

Although MOBA games may differ in execution on PC and Mobile, they typically contain five basic game elements. First, the map: the battlefield consists of three lanes with constructions called "towers" on each lane and monsters in the jungle areas (Calixto 2016). Second, player component: there are two teams composed of one, three, or five members; each controls one "hero" who has unique skills, advantages, and weaknesses (Yang, Harrison, and Roberts 2014, 5). Third, upgrading: players start from nothing in every new round; leveling up themselves by defeating minions (computer-controlled units), opponents, and monsters to acquire both experience and gold. Fourth, recovery: if a hero is killed, it will respawn in the home base after a recovery period. Fifth, teamwork: players who may be strangers must collaborate tactically to make the team grow stronger in a short time frame (Jackson 2013).

History

The origin of MOBA games can be traced back to 2003 when a *Starcraft* player Aeon64 made a mod map named *Aeon of Strife (AoS)*. In rudimentary forms, *AoS* contained basic MOBA elements: a map with three lanes, eight playable characters, and an ultimate goal to destroy the enemy's base (Altay 2015). Later, another modder Eul took inspiration from *AoS* and created his own complexed version within *Warcraft III* called *Defense of the Ancients (DotA)*. Modders, including Meian, Guinsoo, and IceFrog, continued to tweak *DotA* throughout time. Building on fans' involvement, by 2008, *DotA* attracted commercial attention from Riot Game, debuting *League of Legends (LoL)* in 2009 and it soon became a boom (Nelson n.d.). After seeing the phenomena of *LoL*, Valve quickly secured the franchised IP of *DotA* and debuted *DotA2* in 2013 (Totilo 2010). As MOBA games gained international popularity, in 2015, Chinese company Tencent released its mobile game called *Honor of Kings*. It becomes one of the most downloaded apps globally and the highest-grossing mobile game (Partis 2021).

Business Model and Marketplace

Most MOBA games adopt a free-to-play (F2P) model with in-game microtransactions to monetize the game. Players can access the core game for free, then they are given options to

purchase items that increase the pleasure of the game. Because of MOBA games' complexity and skill-based nature, they are not suitable for the "pay-to-win" monetization mechanism which can easily break the balance and fairness of the game (Silva 2015). Instead, MOBA games make money through "champion specific microtransactions," including avatar cosmetics, hero unlocks, boosts (experience/currency), etc. According to Electronic Entertainment Design and Research analyst Ed Zhao, avatar cosmetics and hero unlocks made up to 56% of the total microtransaction revenue, and an average of $43.4 was spent per paying user via microtransaction (Zhao 2015).

Journalists identified variety of reasons why this monetization works for MOBAs, with the following three as the most significant. First, a large and loyal player base: MOBAs as a team competing game offer a distinctive social pull that tends to generate so-called "superfans." Players introduce the game to friends and forge a community that shares their enthusiasm. They build a loyal attachment with one specific game. The game then becomes their hobby and players are more willing to spend money on it compared to other games (Lovell 2014). Second, players tend to pick a few heroes they like the most and stick on playing those. They are more likely to buy skins and animation effects to personalize their most played heroes to their liking (Kilkku 2015). Third, although MOBA games, in theory, are free-to-play, in practice, hardcore players are expected to purchase newly released heroes to keep up with the cadence of the game; additionally, with a rotating pool of free-to-play heroes, common players get a taste of paid heroes and incentivize to buy the hero after the free period ends (Kilkku 2015).

MOBA games, as a sub-genre fall under strategy games, make up a significant portion of the video game marketplace. According to The State of MOBA Game Report 2021, strategy games represent 20.4 percent of the worldwide game industry revenue, and MOBAs represent 23 percent of the strategy games revenue (SensorTower 2021). Mobile MOBAs specifically perform well, especially during the pandemic. During the Covid-19 lockdowns, MOBA revenue surged when players' average monthly spending rose by 43 percent in 2020. And since the beginning of 2021, mobile MOBA games' revenue has reached $300 million monthly (SensorTower 2021). It is worth mentioning that the majority of the revenue mobile MOBAs generate comes from Asia with *Honor of Kings* as the bellwether, surpassing $10 billion in total player spending since its launch in 2015 (Beach 2022).

Live Streaming and Esports

MOBA games bring business opportunities that exceed the game itself. One of the opportunities is live streaming. Twitch is an American video live streaming service that has focused on video game live streaming since 2011. At the time Twitch started operating, *LoL* already had 27 million users, a solid audience base with the potential to watch *LoL* live streaming (Paez 2021). With this advantage, MOBA games, especially *LoL*, remain at the top of the leaderboard despite the rise of new major games and unexpected indie games. Twitch recommends games by the number of live viewers, for it's an important metric to measure the success of a game. So, average viewership is a fair standard to determine the popularity of a game on Twitch. According to statistics from twitchstats.net, *LoL* is ranked No.1 as the most popular twitch game of all time with 145,779 average viewers, and *DotA2* is ranked No.5 with 55,243 average viewers of all time (TwitchStats 2022).

MOBA games are also among the most popular genre of Esports. Riot began its development in Esports back in 2012 with the League of Legends Championship Series (LCS), then expanded its franchise to other countries and regions such as LCK in South Korea and LPL in China. The largest annual tournament is the League of Legends World Championship where 22 teams across the globe compete to win prizes (Nelson n.d.). *DotA2* also has its own annual world championship known as The International which features 20 teams worldwide (Nelson n.d.). The game companies earn part of their revenue from the multimillion-dollar franchise fees that teams must pay to compete and the broadcasting license it sells to streaming platforms such as Twitch and YouTube. For event holders like Riot and Valve, Esports tournaments may not necessarily make up a large percentage of the total revenue themselves (Amenabar 2021). However, Esports tournaments act as a strong marketing tool to inspire more people to play the game and encourage existing players to spend more time and money on it .

Additionally, because of MOBA games' varied characters, there is economic potential for further storytelling to make the game into a long-standing IP. Riot Games announced *LoL*'s animated television series Arcane at its 10th anniversary in 2019 and released it on Netflix at the end of 2021. The animation soon became a hit and drew non-LoL player audiences as well. Arcane proved to be a huge success as it ranked first on the Netflix Top 10 Chart in 52 countries with a profit of about $1 billion (Shum & Gim 2021).

--L.Y., Spring 2022

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Mojang Studios

Overview

Mojang Studios is a Stockholm-based video game developer known for establishing the *Minecraft* franchise. Originally founded as Mojang Specifications by Markus Persson and Jakob Porser in May 2009, the Swedish company incorporated as Mojang AB the year after, and ultimately became a first-party subsidiary within Xbox Game Studios following Microsoft's acquisition in 2014. In 2020, they rebranded as Mojang Studios, primarily overseeing the *Minecraft* franchise. As of November 2025, Mojang reported 192 employees working in Sweden and an approximately 600 total employees across additional locations in London, Shanghai, Tokyo, and Redmond, Washington, where Microsoft is headquartered (Boddy 2021; Milton et al. 2025). In 2025, Mojang reported €309 million in net sales for the fiscal year 2024/25, ranking behind King as second place among Swedish game companies by domestic net sales.

Founding of Mojang

Mojang Specifications allowed Persson to commercialize the early builds of *Minecraft* which he made publicly available, primarily spreading through word of mouth on an internet forum in the beginning. Despite being commonplace now, the paid early-access strategy was unusual for the period, but frequent updates and direct community engagement allowed it to quickly gain traction. The business was incorporated as Mojang AB, and sales accelerated until the need for formal publishing and greater support became evident (Wiborgh 2020). Persson was joined early by co-founder Jakob Porsér and chief executive Carl Manneh, who helped professionalize operations as a small team relative to the game's momentum. By June 2014, just five years after its first releases, *Minecraft* sold nearly 54 million copies across PC, console, and mobile, making Mojang one of the most profitable small studios globally (Farokhmanesh 2014).

Microsoft's Acquisition

In 2014, Persson offered to sell his share in Mojang with a desire to move on to other projects. On September 15, Microsoft announced a definitive agreement to acquire Mojang for $2.5 billion, became the first-party subsidiary of Xbox Game Studios (then called Microsoft Studios) the same year, and rebranded as Mojang Studios in 2020 (Miller 2014; Wiborgh 2020). At the time, Mojang employed only 40 people, yet *Minecraft* was the top paid app on both the iOS App Store and the Google Play Store, meaning it brought in $287 million in revenue in 2013 and an operating profit of $126 million for the year (iTnews 2014).

As part of the transition, Persson, Porsér, and Manneh left with the acquisition, while the rest of the Mojang team joined its game studio. At the announcement, Microsoft stated that Minecraft would remain available on existing platforms, naming iOS, Android, and PlayStation alongside Xbox and PC (Spencer 2014). The acquisition formally closed in November 2014, after which Mojang continued to operate and develop the franchise while Microsoft helped with managing aspects of publishing, partnerships, and brand. Together they have since expanded *Minecraft* as a franchise, pushed its influence with services and licenses, and incorporated its own technologies such as Microsoft accounts and Xbox Game Pass.

The *Minecraft* Franchise

Mojang's games portfolio is largely occupied by the *Minecraft* franchise. As of April 2025, *Minecraft* has sold over 350 million units worldwide, cementing it as the best-selling video game of all time. Over a decade after its initial release, *Minecraft* won the Still Playing Award for PC & Console at the 2024 Golden Joystick Awards and continues to release content updates. In 2025, Mojang pushed out three major updates synced across Java and Bedrock editions: Spring To Life in March, Chase the Skies in June, The Copper Age in September — roughly every three months. Beyond the game itself, Mojang offers digital add-ons and services, licensed publishing, merchandise, film adaptations, and experiences. They manage Java, Bedrock (previously Pocket), and Education editions of the game; related services such as Realms, Realms Plus, the Minecraft Marketplace; and its spin-off titles *Minecraft Dungeons* (2020), *Minecraft Legends* (2023), the discontinued *Minecraft Earth* (2019), and the upcoming mobile puzzle game *Minecraft Blast,* co-developed with King. Licensed publishing includes handbooks, novels, comics, and prints.

There is also licensed merchandise spanning toys, apparel, footwear, and collectibles. Notably, Mojang has collaborated to produce various collections including with LEGO, Burberry, and recently, Adidas and Swarovski (Szulborski 2025). In April 2025, Mojang partnered with Legendary Entertainment and Warner Bros. Pictures to release the feature film, *A Minecraft Movie,* to immediate success as the highest domestic opening for a video-game adaptation and grossed over $550 million globally by its second weekend (Milton et al. 2025; Childress 2025). Mojang and Warner Bros. Pictures has since announced a sequel targeted for July 2027, both sides leveraging the blockbuster's success (Bahr 2025). Mojang held physical experiences in the form of annual fan conventions called Minecon from 2010 through 2016 — after which they replaced with a livestream format called Minecraft Live. In 2024, Merlin Entertainments announced a $110 million multi-year partnership with Mojang to develop *Minecraft*-themed attractions and a theme park in the U.K. and U.S. (Sweney 2024).

China and NetEase Games

In May 2016, in efforts to expand *Minecraft* into the Chinese market, Microsoft, Mojang, and NetEase Games announced a five-year agreement to license the game to NetEase. In China, both the PC and mobile versions of *Minecraft* are operated by NetEase Games, with Mojang developing a version for the Chinese market in collaboration with them (NetEase 2016). The partnership launched a closed beta in 2017 and rolled out localized releases thereafter. The Chinese release is run as a free-to-play service, which quickly surpassed 100 million registered users across PC and mobile within its first year on the market (Kerr 2018). The Chinese editions of the game remain region-specific, separate from the global Java or Bedrock ecosystem, with Mojang continuing to supply updates adapted for the platform and its regulation requirements.

Other Projects

Outside of the main franchise, Mojang's other projects consist of *Caller's Bane, Cobalt,* and *Crown and Council. Caller's Bane* is a digital collectible card game developed by Mojang and originally released in 2014 as *Scrolls,* but later renamed and re-released for free in 2018 (Wood 2018). The studio ended development on the game just a year after launch in 2015, but re-released it with a modified client that supports user-run servers for people to still enjoy. The

name change was due to a previous settlement with Bethesda's parent company ZeniMax over the "Scrolls" trademark, inhibiting Mojang from releasing other titles or sequels with the name (Knapp 2012). *Cobalt* is a 2016 action side-scroller published by Mojang Studios and developed by Oxeye Game Studio. Mojang ran a paid alpha mimicking *Minecraft*'s release strategy and helped launch the game on Steam and Xbox. While not developed by Mojang, *Cobalt* was their first third-party release — the only other being *Cobalt WASD*, a free multiplayer-focused spin-off title in 2017 (Oxeye Game Studio 2015). *Crown and Council* is a free strategy game developed by Henrik Pettersson, an employee at Mojang. It is currently the only Mojang-developed game ever released on Steam, but it was met with mixed reception on release in April 2016 (Game Developer 2016).

-D.S., Fall 2025

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Music in Video Games

Overview

Music, for video games is a vital tool that controls emotion, establishes tone, and builds ambiance for an immersive experience (Anara Publishing 2018). It connects players to characters, builds excitement through progression, and enhances an individual's sentiment towards a game.

Evolution of Music in Video Games

Since the 1977 *Atari VCS*, music has been a crucial component of video games. Initially sold with a copy of *Combat,* a 2-player game influenced by Pong, VCS cartridges contained the earliest signs of audio feedback in video games. *Basic Math*, an educational title that came with the launch, featured "two musical strings, one to reward a correct answer and one ot signal an error" (McAlpine 2018). A few years later in 1981, *Asteroids* brought "monophonic two-note" music to video games, establishing a formula around building tension in the gameplay by increasing the tempo of the sound. This was reflected in Taito's *Space Invaders* and Bit Corp's *Open Sesame,* which utilized sound to enact urgency into the players (McAlpine 2018).

It was not until Atari's *Snoopy and the Red Baron,* released in 1983, that a shift occurred in the approach to production of music in video games. For this cartridge, Atari hired music consultant Ed Bogas to work alongside the game designers to provide cues and cuts that formalized a proper narrative with the soundtrack. A year later, Nintendo hired its first music director and sound designer Koji Kondo - who later wrote for many of Nintendo's most accomplished games including the Super Mario franchises, the Legend of Zelda and several Pokemon credits, to name a few (Hua Hsu 2015). Evidently, although primitive video game consoles like the Atari 2600 lacked the required "memory to worry about elaborate soundtracks," as technology developed, so did the music (Vass 2013).

Jumping forward in time, we see soundtracks of AAA titles adopting film-like scores for it's soundtracks. Naughty Dog's survival horror game *The Last of Us* is a great example, released in 2013, as they hired Academy Award winning film composer Gustavo Santaolalla to score the entire gameplay narrative. With much acclaim, HBO and Naughty Dog announced in March 2020 that Santaolalla will also score for the TV show adaptation, emphasizing music's influence in achieving an "immersive fiction," crucial to a successful video game (Wong 2020).

The Business of Video Game Music

Developers often acquire music for their video games through either Work For Hire agreements or licensing deals from record labels and publishers.

Work for Hire
Among the most common methods - especially for high-profile titles - is music written under a Work for Hire agreement, through in-house sound engineering departments or third-party studios. Under such agreement, game developers usually have complete ownership of the music and licenses out specific sections to publishers for marketing and advertising purposes. They pay

the composers an upfront fee for the service, recouping costs later through game sales (Schmidt 2019).

This cost varies between video game music composers and depends heavily on not only the budget of the video game, but also the length of the soundtrack. Michael Sweet, video game audio composer who leads the game scoring curriculum at Berklee College of Music, suggests that the base-rate for a “finished minute worth of professional game music” is $1000, which generally represents 5-15% of the total project (“How to Price Your Music… Berklee Online Take Note” 2019). As an independent video game music composer however, estimates range from $50 to $2500 per minute of music (Ninichi 2018).

Nevertheless, the higher the budget of a video game title, the greater the flexibility and budget around scoring. Koji Kondo, in the 2007 Nintendo title *Super Mario Galaxy*, recorded the entire game with a 50-person orchestra, specifically requesting the same themes to be played at different tempos. This was so that the gameplay could be dynamic and integrate sound effects more seamlessly, enhancing “interactivity while maintaining the musical nuance of a live recording” (Aska 2017). 2008, Mistwalker Studios’ title *Lost Odyssey* by Final Fantasy producer Hironobu Sakaguchi however, incorporated both electronic samples and live orchestration. Nobuo Uematsu, the composer for this game, suggested that some of the battle scenes were “unplayable for orchestra” and took “aesthetic consideration” to incorporate both techniques (Aska 2017).

Licensing

Although scoring soundtracks for video games through Work for Hire agreements or in-house composers are common methods for developers to obtain music, *FIFA, Saints Row, MLB 2K*, and *Guitar Hero* are examples of titles that use well-known, popular music, written and recorded by artists. In these scenarios, game developers seek licenses from music publishers and record labels to legally use copyrighted music in their projects (Songtrust Staff 2012). Specifically, two licenses are required for the use of recorded music. A synchronization license, with the music publisher who owns the composition and underlying arrangement of the song, and a master use license, with the record label who owns the master recording (PQ 2018). Take episode 5 of *Tales from the Borderlands* for example; English producer and songwriter James Blake’s “Retrograde” is heard when the two main characters fall through space in the opening scene. In *Red Dead Redemption"*, Argentinian-Swedish folk singer Jose Gozalez’s “Far Away” is heard when John Marston, the main character, crosses into Mexico for the first time. Alex Wadell from Headstuff recalls this scene to “fill [him] with excitement and disbelief as [he] realized that John Masteron’s story was really just beginning” (Waddell 2018).

Licensing popular music not only enhances the sentiment and recognition around memorable gameplay, but also has become a promising promotional tool and channel for artist discovery (UCAYA 2020). Steve Schnur, President of Music at EA Games asserted his belief that for artists, video games could become the next MTV or commercial radio. In essence, Shnur claims that any given song that is placed on FIFA, would be guaranteed one billion listens - equivalent to 800,000 album sales (UCAYA 2020). Thus, video games provide global exposure that is unmatched by any other streaming platform in the recorded music industry.

Music Supervisors

For a game developer to close synchronization deals, they must go through music supervisors who are responsible for tracking down rights holders and maintaining relationships with record labels and publishers. They are essentially the middleman between video game studios and the music industry - and understand not only business lingo, but the feasibility of whether a requested track fits the soundtrack budget (PQ 2018). Ivan Pavlovich, a member of the Guild of Music Supervisors and Director of Music at Rockstar Games, has stood at the forefront of this position in the video game industry. In 2019, he pioneered the soundtrack efforts for *Red Dead Redemption 2*, which garnered $725 million in its first three days of release, generating an array of YouTube covers from the soundtrack repertoire (Gallo, Herman, and Gopalan 2019).

Issues

Despite the growth of the video game economy, the Game Audio Industry Survey in 2019 revealed that many video game composers are dissatisfied with their pay. In fact, the survey emphasized how only 33% of AAA composers have been registered with a performing rights organization - non profit organizations that ensure accurate royalty payments for composers and songwriters (Ombler 2020). Essentially, PRO's would enable composers to receive royalties from streaming and ancillary revenue streams that reach beyond just an up-front fee. Video game composer Marty O'Donnell, behind the soundtrack of the Halo series, emphasized how many of "his peers [gave] too little consideration to the long-term value and impact of their work" (Ombler 2020). O'Donnell argued that solely relying on the Work for Hire price tag mitigates the total long-term value of an artist's success, valued by streaming royalties and live performances (Ombler 2020). He raised awareness to the Game Audio Network Guild, a non-profit organization aiming to "discuss and confront issues affecting the interactive audio industry" ("About" 2019).

-T.T., Spring 2020

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NetEase, Esports, Identity V

Overview

Identity V is a free-to-play asymmetrical PvP mobile horror game released by NetEase for Chinese servers in April of 2018 and globally in July 2018 ("Identity V Game Development" 2025). In April of 2025, *Identity V* reached over 400 million players worldwide (@GameIdentityV 2025). As of August 2025, *Identity V* has a $500+ million lifetime revenue, largely stemming from in-game cosmetics such as costumes, pets, and lobby furniture (BitTopup 2025).

Identity V esports started with the server-wide Call of the Abyss I tournament in 2018 and grew to feature different regional leagues and tournaments that became professionalized ("Call of the Abyss" 2025). The creator of IVL (the Chinese regional league), Yang Zhang, established the league with the intention of feeding a virtuous cycle that he hoped would expand *Identity V*'s brand image and influence to help with future commercialization, which would then in turn benefit clubs and players, enhancing the *Identity V* esports circle's overall influence; IVL stands firmly as NetEase's first experiment with professionalizing asymmetrical esports, framing NetEase as a pioneer of this field (Lu 2020). As of October 2025, *Identity V* esports' official account amassed over 1.5 million followers on Bilibili (第五人格赛事 2025).

As of October 2025, the current biggest leagues in *Identity V* esports are the annual global tournament Call of the Abyss (COA), the seasonal (Summer and Autumn) Identity V League (IVL) based in China, and the seasonal (Summer and Autumn) Identity V Japan League (IJL) based in Japan. Top placing teams of IVL and IJL Autumn seasons are offered spots to participate in COA, and those of Summer seasons spots to IVS, often seen as the smaller COA. Teams from other regions participate in smaller tournaments to secure their spots ("Tournament" 2025).

History of Leagues

Identity V esports started with the server-wide event Call of the Abyss I (COAI), first released exclusively for the Chinese server between June 28th and August 2nd, 2018 ("盛夏狂欢" 2018). All players could form teams and rank for points; at the end of the event, the top 8 teams were selected to compete in the offline carnival for cash prizes summing up to 358, 451 Chinese Yuan (CNY), roughly 52.3 thousand USD at the time ("燃情四射！" 2018). COAI was pirate-themed and introduced limited-edition costumes, accessories, and pets that players could either get for free through the event, pull from *Identity V*'s "orbs" gacha system, or purchase with in-game currency. Following this event model, COA reoccurred annually with different themes ("Call of the Abyss I" 2025).

IVL started with the 2020 Summer season on June 25th of 2020 with 10 professional clubs, including but not limited to subdivisions of well-known clubs like Wolves Esports, establishing itself as the first professional *Identity V* league in China (摸鱼达人作业君 et al. 2025). IVL's establishment professionalized COA, since winning teams were guaranteed spots at COA. However, COA still maintained a channel for amateur participation by allotting spots in the final playoffs to top ranking amateur teams in the server-wide COA events (DoraHz, 摸鱼达人作业君 et al. 2025).

IJL started with the 2022 Summer season on June 4th 2022 with 7 professional clubs and 3 amateur teams, establishing itself as Japan's most elite IDV league (沈何昕生先 et al. 2024). Subsequent IJL seasons varied by total number of teams as well as number of professional and amateur teams (DoraHz, 今天中午吃什么好啊 et al. 2025). Since its establishment, IJL has, like IVL for Chinese teams, become the guaranteed channel for Japanese teams to enter COA.

Monetization of Leagues

NetEase does not publish *Identity V* esports revenue. Early monetization, as in COA I, largely came from in-game cosmetics purchases. During COA I, NetEase funded COA I's final prize pool with 20% of its revenue from purchases of the event's special themed cosmetics (电竞小马 2018). The final prize pool was the aforementioned 350 thousand CNY, which means that NetEase grossed about 1.75 million CNY from this event alone in the span of about a month. COA I had no other streams of revenue, but more streams opened up after the esports leagues were established.

Currently, it can be inferred that *Identity V* esports' main revenue components, additional to revenue from special skins for COA events, include partnerships with sponsors, team entry fees, ticket and merchandise sales, in-game cosmetics designed for winning teams, and livestream monetization. Sponsors for IVL and COA have mainly been Chinese companies or products that are well known within the country, including but not limited to Alipay, Happy Valley, Bright Dairy, Sanjin Watermelon Frost, KFC, and Sony Experia 5 II ("Ant Group" 2025; 第五人格小斌斌 2021). Team entry fees to the leagues have not been made public, but Chinese netizens speculate that the entry fees for IVL are around 5 million CNY per team (小鹅你可以吃烧饼 2025). There are currently 10 professional IVL teams, making the total revenue from entry fees 50 million CNY. Ticket sales for offline events have been quick, with COA VI's selling out its total estimated 20 thousand tickets in 2 minutes and 29 seconds after the seats' release (杭州网 2022; 江奈死良, 萌新瑞瑞 et al. 2025; 网易手游频道 2023). Starting from July 29 of 2022, IVL began selling trading cards with players and moments on them for each season, priced at 29.99 CNY per pack of 4 cards (@第五人格赛事 2022). The sales are not transparent, but it can be inferred that it is not a large portion of the overall revenue due to fans' complaints of it being overpriced. Since COA IV, *Identity V* has been putting out 2 in-game costumes for the winning

team each year, which are only purchasable with 1388 in-game currency (roughly 130 CNY) (小猪小天 2025). Livestreaming is also a source of revenue, and *Identity V* esports livestreams on a multitude of platforms; in particular, on Bilibili, their account "livestreams" 24/7 by replaying loops of recorded matches when live matches are not happening (第五人格赛事 2025). Indirectly, netizens claim that *Identity V* esports help keep players retain interest in or redirect them back to the game (还有谁！！！！ 2023), increasing in-game revenue.

The Prize Pool

Disregarding currency exchange rates, the largest prize pool for COA was COA VI's 4,050,000 CNY ("Identity V" 2024). For IVL, the prize pool rose from an original 2 million to 3 million CNY starting from the Summer 2025 season (江奈死良, 裹腹喊心 et al. 2025). Compared to other Chinese esports tournaments, such as for *Honor of Kings* which had a historical high prize pool of 70 million CNY, *Identity V* esports' prize pool is lacking (Chen 2025). Other Tencent games, such as *Game for Peace*, benefit from marketing resources provided by the tech giant, reducing the need for a large prize pool (奶黄包 2024). However, *Identity V* esports exists on a much smaller scale with less resources overall, creating a gap between the need to increase prize pools to attract more pro-players and viewership and NetEase's actual ability/willingness to provide.

-C.X., Fall 2025

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New York Times Games

Overview

New York Times Games is a video game publisher developed by *The New York Times* Newspaper Company officially launched in 2014 (The New York Times Company n.d.). Today, *NYT Games* hosts a collection of ten word and logic games including popular favorites such as The Crossword, Mini, and Connections as well as acquired games like Wordle (The New York Times 2017; Victor 2022). *NYT Games* can be played online or downloaded on mobile devices with limited games free to play, requiring a New York Times Subscription for full access to all games and subscriber-only puzzles and features (The New York Times Company n.d.). Today, a *NYT Games* subscription costs $6/month or $50/year, and while the exact player base is unknown, 11.1 billion *NYT Games* puzzles were solved in the last year (The New York Times n.d.; Weisholtz 2025).

Games at the New York Times: From Print to Digital

With a legacy in print journalism, over the years, *The New York Times* has also become synonymous with games, particularly The Crossword. First published in 1942 by Margaret Farrar, it began as a way to give readers a break from the troubling news of War War II (The New York Times 2017). At the time, The Crossword was published once a week in the Sunday paper and tested the reader's general knowledge, deciphering words or phrases that cross horizontally and vertically based on a set of clues (The New York Times 2017). In 1950, *The Times* developed the game into a daily puzzle, and, in the following years, the game would gain great popularity, sparking crossword tournaments, creative proposals, and even a crossword documentary (The New York Times 2017).

The Crossword became available to play online in 1996 when *The Times* launched their first website (The New York Times 2017). Up until this point, The Crossword had been free to play online and available in the printed paper, but in 2011, *The Times* announced their new subscription plan (Peters 2011). At the time, the online paywall allowed users to read up to 20 articles a month free of charge, including The Crossword, before being asked to subscribe at $15/month or $195/year (Peters 2011). With the initial goal of 300,000 subscribers in the first year, the plan was not intended for short-term gain (Peters 2011). And in 2014 they made the next steps, launching *The New York Times Games* as a separate business, app, and subscription plan from its journalism (Fagliano 2019).

The New York Times Games App

In 2014, The Mini, a miniature 5x5 version of the NYT Crossword, was launched in addition to the new NYT Crossword app in hopes to broaden general appeal (Fagliano 2019). With an average one to two minute completion time, the puzzle took off especially among the younger generation of mobile users, sparking the development of original games in the same vein (Fagliano 2019). In 2018, they launched Spelling Bee, an anagram game, followed by Letterboxed, and Tiles, their first non-word game (The New York Times Company n.d.; McCleary 2019). Today, the *NYT Games* catalog includes 10 daily puzzles, with the addition of

Connections, Strands, Sudoku, Pips, and, most notably, Wordle (The New York Times Company n.d.).

Acquired by *The New York Times Games* in January of 2022, Wordle was a viral word game created by Josh Wardle during the pandemic for his partner (Victor 2022). Wordle was released publicly in October of 2021, and three months later had over 300,000 players (Victor 2022). Inspired by *NYT Games,* the game benefited from similar, straightforward game mechanics, a low barrier to entry, and sharability during a time of isolation. After its acquisition, in 2023, *NYT Games* were played 8 billion times, 4.8 billion of which were for Wordle (Fitzpatrick 2024). And with more players on the app, players were actually converted, leading to the "best quarter ever for net subscriber additions to Games" (Orland 2022).

Today, most NYT games are still free-to-play, including Spelling Bee, Wordle, Connections, Strands, Sudoku, and Pips while their most popular games as well as archived content, themed Minis, and, most recently, the ability to create and share personal Wordles, require a *NYT Games* subscription (The New York Times Company n.d.). While Games only access starts at $6/month or $50/year, full access subscriptions to the New York Times Bundle, including Games, News, Cooking and more, start as low as $2/month for the first six months and $6/month every four weeks after (Grant 2025; The New York Times n.d.).

Game Development

Behind its success is the Games Team, a dedicated group of game designers, product managers, engineers, and more who allow *NYT Games* to run independently from *The Times* (McCleary 2019). With the goal to keep users engaged, the Games Team is constantly developing and testing new games while maintaining the quality and innovation of their current slate (Honigman 2024). Game development starts with the "'Greenlight' Process," a number of phases, including pitch, early development, and internal testing, that each end with a vote to decide if development should continue (Honigman 2024). Once a game is greenlit, it moves on to the "Prototyping Phase" where the team tests game mechanics and design elements, receiving feedback from players and iterating as needed (Honigman 2024). Strands in particular took 6 months to develop from initial pitch to beta launch and was released on March 4, 2024 (Honigman 2024). After launch the team tracks success metric and player feedback, implementing changes as needed. The word search inspired game was released to great success attracting many new users, helping *NYT Games* remain at the top of the Apple store downloads chart in 2024 (Honigman 2024).

Situating New York Times Games Today

On August 18, 2025, *NYT Games* released Pips, a domino-based mathematical puzzle with three difficulty levels for all types of players (Atchley 2025). While Pips released free to play, The Mini has now been placed behind a paywall to the grievances of many devoted fans (Shields-Rossi 2025). But with a goal to reach 15 million subscribers by the end of 2027 and to support the team behind the games, this might be a necessary step forward (Shields-Rossi 2025). Today, *The New York Times* hosts over 11 million digital subscribers across News, Games, Wirecutter, Cooking, The Athletic, and Audio sectors with over half buying bundled subscriptions, around 2 million with news-only subscriptions, and the remaining 3.5 million with another single-product subscription (Grant 2025; Kerr 2025). While games aren't distinctly categorized, according to a

2024 statistic report, Games has outperformed News in driving NYT Bundle engagement and have consistently ranked in the top 30 downloaded iOS games for the past year (Aylmer 2024). Thus, by implementing paywalls and introducing new games and game mechanics like the multi-game leaderboard or the ability to create custom Wordles, *New York Times Games* continues to be an innovative game publisher and an important subscription driver for *The New York Times* (Vivinetto 2025; The New York Times 2025). Especially in the digital age where traditional news sources are falling out of favor, people's love for the games will continue to drive engagement and profit to *The Times* for the foreseeable future.

-K.M., Fall 2025

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Nexus Mods

Overview

Nexus Mods is the largest site for user-created modifications for PC games. It is operated by Black Tree Gaming Ltd., a United Kingdom-based company. Nexus Mods hosts mods, tools, and other user-created content for thousands of games, further supported by forums, a wiki, and an API for both mod managers and developers. As of late 2025, Nexus Mods boasts 68 million registered members and over 780,000 files hosted on the site for over 4,000 games and counting. (Network statistics 2025)Its scale renders it the largest hub for some of the most popular games, including *The Elder Scrolls V: Skyrim*, *Fallout 4*, and *Cyberpunk 2077*. Simultaneously, Nexus Mods is in the process of a transition in which founder Robin "Dark0ne" Scott, who had long been at the forefront of the company, is transitioning day-to-day operations to a group of new owners who are later found to be a gaming company chosen (Woods 2025).

History

Nexus Mods was originally created in August 2001 when Robin "Dark0ne" Scott created Morrowind Chronicles, a fan site to Bethesda's *The Elder Scrolls III: Morrowind*. Morrowind Chronicles quickly drew thousands of daily visitors and cultivated a community around modding Bethesda's RPG. The site soon evolved into Morrowind Source, reflecting its role as a mod repository rather than just a fansite (Scott 2008).

After Morrowind Chronicles took off, Robin Scott and his collaborator created a company called Gaming Source, a subsidiary aimed at helping other webmasters create and host websites, while also standing up the revamp of Morrowind Chronicles as The Elder Scrolls Source after the announcement of The *Elder Scrolls IV: Oblivion*. By 2006, the Gaming Source was incorporated, but Scott became dissatisfied with the 50/50 arrangement while he himself handled day-to-day operations. In September 2007, he chose to leave Gaming Source, negotiated to keep the TESSource database and files, and launched a fresh site under the name TES Nexus. This split marked the end of TESSource under the Gaming Source network and the beginning of the Nexus-branded network (Grandstaff 2007).

After the TES Nexus rebrand, the site gradually broadened beyond Elder Scrolls, supporting mod uploads for an expanding roster of PC titles, as the scope of the TES Nexus team expanded beyond Bethesda titles. TESNexus adopted the umbrella name Nexus Mods in 2012 (Scott 2007).

On June 16, 2025, Scott revealed that he had sold Nexus Mods to a buyer yet to be named, as he wishes to step back from the pressures of running the site. While he will still be engaged in supporting the site, he intends to hand over management to a long-serving moderator. As time

passed, it became known that Chosen, a game development company, was the new owner (Woods 2025).

Features

At its core, Nexus Mods provides a centralized hub for distributing, installing, and managing game modifications. The site organizes thousands of files by game, category, tag, and endorsement score, and offers search and filtering tools that let users find specific mods, whether they are visual overhauls, gameplay adjustments, or technical fixes. Each mod is represented by a dedicated page that includes a description, version history, compatibility information, installation instructions, permissions, media assets, and a comment section for user feedback and troubleshooting.

Nexus Mods also offers an API that external mod managers, including its own Vortex client, can use to support direct downloads, dependency handling, and load-order management, simplifying complex mod configurations and making the modding process user-friendly. The platform also provides a “collections” system that allows users to assemble and share predefined sets of mods that can be installed together, facilitating the sharing of large, curated mod lists. All of these features are supplemented by forums, private messaging, and a documentation wiki, which together provide channels for support, sharing, and community coordination under the Nexus Mods moderation team.

Business Model

Nexus Mods is monetized through advertising, premium memberships, and a creator reward system that allows mod creators to earn a revenue share. The key features of Nexus mods, searching, downloading, and uploading mods, are free for all users with advertisements, while also experiencing limited download speeds.

Premium membership priced at $8.99 a month allows unlimited download speed, removal of all advertisements, and enables users to download a mod “collection” with one click, as opposed to manually downloading every mod in a “collection.”

Beyond that, Nexus Mods premium subscribers also directly fund Nexus Mods’ creator reward program through their “Donation Points” (DP) system. Donation Points are a virtual currency that mod authors accrue based primarily on the aggregate download activity and engagement generated by their hosted files. These points can then be redeemed through an internal storefront for cash-equivalent payouts, donated to approved charities, or transferred to other Nexus users, effectively turning mod popularity into a quantifiable and redistributable resource. According to Nexus Mods’ own Donation Points statistics page, the platform has paid out more than US$14.7 million in DP to authors since the program’s launch in May 2018, with over US$413,000 directed to charities such as the Wildlife Conservation Society, Ukraine relief initiatives,

Médecins Sans Frontières (Doctors Without Borders), the International Committee of the Red Cross, and Make-A-Wish Foundation (Nexus Mods 2025).

Role in Modding and Gaming Culture

Nexus Mods has a significant impact on the PC gaming world by lowering the barrier to entry for sharing and discovering mods. For many single-player games, Nexus can serve as a second life, with popular releases like *Skyrim* and *Fallout 4* hosting active player populations years after release as modders continually offer new quests, remastered graphics, and upgraded game mechanics (Livingston, 2025).

Nexus Mods also serves as an unofficial talent pipeline. Major modding projects often serve as portfolios for their creators, helping them get into professional game development. A report from Business Insider reveals that platforms like Nexus Mods provide a bridge between hobbyist modding and professional game development, showcasing sustained, collaborative work (Antonelli 2025).

In the broader context of gaming culture, Nexus Mods is also a consistent source of controversy related to content moderation and site responsibility, especially when mods run political, representational, or adult content. Decisions to delete certain mods or to enforce measures to control harassment and hate speech in comment sections regularly trigger gaming discussions about free expression versus community safety (Hernandez 2025).

Perhaps the most publicized controversy occurred in August 2022, when the platform removed a mod that swapped in-game Pride flags for U.S. flags in *Marvel's Spider-Man Remastered* and banned the creator's account. Subsequently, Nexus Mods owner Robin "Dark0ne" Scott created a news post reiterating that Nexus Mods would not support anything deliberately anti-diversity, and that users who did not agree with such standards were free to delete their accounts and leave. (Scott 2022)

Nexus Mods has evolved in two decades from a fan site for a game to the center of PC modding, shaping how games are modified, customized, and archived. Its technical tools and creator reward system formalize aspects of fan participation, while its moderation disputes highlight its dedication to protecting members of the modding community. With the transfer of ownership to Chosen, Nexus Mods enters a new phase in which questions of governance, monetization, and moderation will determine Nexus Mods' place in gaming.

-Y.Z., Fall 2025

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Nihon Falcom

Overview

Nihon Falcom Corporation is a Japanese video game developer and publisher located in Tachikawa, Tokyo. Falcom was one of the first developers of role-playing games in Japan for personal computers and helped define the style of Japanese action role-playing games (JARPGs) in the 1980s with important franchises, such as *Dragon Slayer* and *Ys* (Falcom 2025), and established games as a distinct form of video game. The company operates as a single-segment business engaged in the development and sale of video games, collecting revenue from the company's products sold in Japan and through licensing agreements with regional publishers outside of Japan. The company reported total assets of 10.38 billion yen and employed a total of 68 employees as of June 2025 (Falcom, 2025). Despite its modest size, Nihon Falcom has been successfully operating for over four decades by focusing on only the *Ys* series and the *Trails* series, which represent the company's primary revenue streams.

Foundations and Early Development

In March of 1981, Masayuki Kato founded Nihon Falcom Corporation as a computer retail and business consulting company (Dengeki Online 2011). In July of the same year, the company opened Computer Land Tachikawa, an authorized retail outlet of Apple Computer's Apple II system in Tachikawa, Tokyo (Monthly Micom 1981; Falcom 2025). The company's transition into game development began in 1982 with the release of Galactic Wars, developed by Yoshio Kiya, a contract programmer. In 1983, Kiya joined Falcom as the first paid programmer, marking the company's official foray into game development.

The main focus of the company became clearer in November 1984 with the release of *Dragon Slayer*, developed by Kiya, which incorporated action-oriented mechanics with role-playing-style progression systems, helping define the action RPG subgenre in Japan (Falcom 2025). In October of 1985, Falcom released *Dragon Slayer II: Xanadu*, which sold over 400,000 copies and achieved the largest volume of sales for a personal computer game in Japan during the 1980s (Falcom 2025). These early titles established Falcom as a leading creator of computer role-playing games in Japan and set the keystone for the company's continuous growth over the following years.

Platform Strategy and Market Position (1990s-2000s)

During the 1990s, Nihon Falcom developed primarily for Japanese PCs, while competitors such as Square, Enix, and Konami lost popular franchises to the home console market (Falcom 2025; Nutt 2012). Staff were all experienced with PC engines, and important markets for Japanese role-playing games could be found on PCs. Further, for a small development studio, the costs and risks of entering development for consoles were unaffordable (Falcom 2025; Nutt 2012). The strategy was successful and sustained sales in Japan, for example, PC titles, such as the new games in the *The Legend of Heroes* series, including *Brandish* and *Lord Monarch*, helped maintain a loyal customer base.

Nonetheless, Falcom's game franchises posed significant challenges for international sales, as Western gamers were resolutely inclined to engage with Japanese titles on consoles. (Falcom 2025; Massey, 2016). By the late 1990s and into the early 2000s, certain analysts suggested that the PC game market in Japan was shrinking, which created pressures on PC companies and added to Falcom's financial challenges (Holistic Research Institute 2012; Mizuho Bank 2010s). The 2003 release of *Ys VI: The Ark of Napishtim* and the same year event that the Tokyo Stock Market Exchange approved Nihon Falcom's listing on the "Market for the high-growth and emerging stocks" (Mothers, マザーセ in Japanese) initiated their recovery from financial constraints and enabled console development, culminating in their 2006 release of *Trails in the Sky* on PlayStation Portable (Game Watch 2003; Dengeki Online 2003; Holistic Research Institute 2012; Mizuho Bank 2010s).

Leadership Transition and Strategic Reorientation (2007-2012)

In 2007, at the age of 32, Toshihiro Kondo stepped into the role of president of Nihon Falcom, taking over the day-to-day operations of the company, while the founder, Masayuki Kato, would now play more of an advisory role (Kurokawa 2015; Dengeki Online 2018). After joining the company, he was the first to handle the corporate website and Linux server. Once those responsibilities were settled, he slowly started moving into scenario work and scripting on the *Trails* series (Falcom 2025).

Working under Kondo's direction, Falcom reoriented its strategy around Sony's PlayStation Portable. *Trails in the Sky* on the PSP port and the PSP-exclusive *Ys Seven* both confirm that Falcom was able to find a larger audience on handhelds than in the smaller Japanese PC package market (Nutt 2012; Dengeki Online 2024). Starting in 2010, development began on *The Legend of Heroes: Zero no Kiseki* and the sequel, *Ao no Kiseki*, as solely PSP titles, now serving as the flagship series for Falcom and showing a clear shift to consumer consoles (Nutt 2012; Dengeki Online 2024; Falcom 2025). Falcom confirms in their own corporate history that the first-week sales of *Ao no Kiseki* alone exceeded total cumulative sales for *Zero no Kiseki*, confirming the financial and commercial reasoning behind Falcom's PSP focus, and establishing the Crossbell duology as a major change in the commercial record of the Trails franchise (Falcom 2025). Rather than chasing multiple platforms, Kondo framed the idea of a single platform as organizing development resources, ensuring quality, and deepening an audience on a family of consoles (Nutt 2012).

Franchise Concentration and International Strategy

Falcom's current business focuses on two action role-playing franchises, *Ys* and *The Legend of Heroes: Trails*, that have both been around for a long time and are among Falcom's most recognizable brands in Japan and abroad. *Ys* was started in 1987, while Trails began around 2004 (Nutt 2012). In its third-quarter results for fiscal year 2024, Falcom reported that the *Trails* series shipped over eight million units worldwide. The same report indicated that licensing revenue earned from overseas publishers of the *Trails* series was approximately six times larger than the product sales of *Trails* in Japan (Falcom 2024).

Rather than operating their own foreign subsidiaries, Falcom internationalizes both the *Ys* series and the *Trails* series through licensing agreements with regional publishers. In 2010, a

relationship with XSEED Games led to the localization of several Ys and The Legend of Heroes titles for North America on PSP and PC, representing Falcom's first serious, albeit unintentional, push into the West in a systematic way (Gaoili 2010). According to Falcom's 2024 annual securities report, NIS America is the largest single customer at more than 20 percent of annual sales, indicating the importance of this licensing partnership in its international business (Falcom 2024). In Asia, Clouded Leopard Entertainment publishes localized editions of Falcom games outside of Japan, including Traditional Chinese and Korean editions, and they also sell limited editions with mini-soundtrack CDs such as *Ys X: Nordics* (Clouded Leopard Entertainment 2023). These limited editions, together with a consistent release of soundtrack albums by Falcom Sound Team jdk, provide additional income through music and merchandise, which even supports Falcom's own franchise, and allow Falcom to extend its video game franchises into the Chinese-speaking market.

-S.K., Fall 2025

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Non-Interoperability

Interoperability, broadly as a term, refers to the ability of computers and applications to communicate and share resources in a heterogeneous environment. (Stãnescu, et al. 2013). In the video game industry specifically, from the first generation of the game console in the 1970s, Magnavox Odyssey and Atari's Pong, those can only operate one game in the hardware, to the seventh generation in the 2010s such as Play Station Four, Xbox One, and Nintendo Switch, those can operate the games exclusively designed for the hardware, non- interoperability was initially shaped as the mainstream business model of the video game industry, and was intensified with the development of the industry, with the contribution of various factors, such as the limited capability of information technology, the formation of standardization, and the uniqueness of the video game market, one of which is the network effect.

Network Effect

The network effect has a significant influence on the formation of the extremely competitive and user-focused video game market, which causes firms using non-interoperability as a business model. The network effect, also called network externality or demand-side economies of scale, is the positive effect that an additional use of a good or service has on the value of that product to others. When a network effect is present, the value of a product or service increases according to the number of others using it. (Shapiro and Varian 1999). Unlike other concentrated industries with less competitions because of the high entry level and less players in the market, the network effects present in video game systems create competitive forces that lessen the anticompetitive problems traditionally associated with concentrated industries (Williams 2002). With the network effect, the firms can earn most profits by having most possible users stick to their platform, simply meaning that one firm's gain in network effects is likely another firm's loss (Williams 2002). Thus, every firm in the market is putting emphasis on getting the most possible scale of user base. With all firms holding this same belief as the way to earn the profit in the market, the video game market continues to evolve into a more competitive and dominant extreme, leading to a preference to non-interoperability as the core business model in the video game industry.

Non-interoperability as a business model

Within non-interoperability as the mainstream business model in the industry, the extent of using non-interoperability still varies from console to PC and handheld game. In the console platform as well as in the developing mobile platform, non-interoperability and network effects continue to play a key role in preserving competition in a field with a shrinking number of firms, while these firms further depend on non-interoperability to face the competition (Williams 2002). To get the biggest potential user base, the firms will use strategies such as price-undercutting and preempting the announcements made by rival firms to get the first-mover advantage, so as to get

as much user base as possible. However, among all kinds of strategies, the most effective approach the firms ever took is to intentionally invent the extreme non-interoperability between software and hardware for the users by creating a system that is incompatible with the others. In this way, the firms force the players to make an all-or-nothing situation, in which the users either purchase one console and play the games designed exclusively for that console, or stay totally excluded from the console. Besides, In this scenario, different firms will mostly see each other as threats of the market share, thus, a spirit of corporation between firms is unlikely (Williams 2002). Non- interoperability, deriving from the network effect, being manufactured by the firms, further turns into the catalyst of a more competitive, concentrated market, as well as an over-dependence on non-interoperability as a business model in the industry.

There are dual effects caused by the non-interoperability business model. On one hand, the fierce competition and the need of user base encourage and push starting firms, firms with a new product lifecycle, or the firms locked in a standards battle to innovate. While on the other hand, when one firm does get the dominant position in the market, it's very possible for the firm to start abusing its power. For example, For Atari, it was an issue of hype, poor quality, and unreasonable growth expectations. For Nintendo, it was first a lack of innovation in the late 1980s and then an abuse of its relationships with developers in the mid-1990s (Williams 2002). Consequentially, the dominant firms finally lose their dominance in the market with a new firm replacing the dominance. The power that each firm can benefit from the non-interoperability not only becomes the motivation of innovation but also the factor that causes the vibrancy of the dominance.

Experiments in interoperability

In recent years, some organizations and researchers have tried or thought about interoperability as a solution to some problems in the industry, such as the low visibility of the new, small firms, or as an effective tool to develop other branches, such as serious game. Because of the competitiveness and the high concentration of the market, there is a high entry level for new firms to enter the market. Even after the new firms entering the market, they still don't have enough resources for high visibility, that leads to more user base. This phenomenon happens on PC and mobile as well, as the top lists tend to lead the audience to only the few already-successful products (Parkkila, Hynninen, et al. 2015). The new, smaller firms with less resources would only usually use strategies such as co-branding and cross- promotion to improve visibility (Parkkila, et al. 2016), the strategies that have been long and frequently used in other media forms such as music and movies. Thus, some researchers believe that as video games possesses an ability of being much more than just a window for product placement and logo flashing, a deeper interoperability among games can help bring deeper engagement with more meaningful and enjoyable experiences alongside the marketing (Parkkila, Hynninen, et al. 2015) as well as help improve efficiency, responsiveness, and cost saving (Stãnescu, et al. 2013). To this date, exchanging information between video games has been achieved in an ad-hoc manner among

single products, for example, *Dust 514* and *Eve Online* made by CCP games can share the same universe, where the two games exchange data between each other.

In serious games development, the concept of video game ontology has been developed and understood as the foundation of the common vocabulary of games. These vocabularies will then function as a tool to teach game students, to define the common game elements, and to build the unified standard for the industry. Nowadays, researchers have developed five key areas of interoperability in serious game design, Standardization, Interchangeability, Standard Adoption, Open systems architecture, and Unique specifications and proprietary devices (Stãnescu, et al. 2013).

-J.W., Fall 2018

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OpTic Gaming

Overview

OpTic Gaming is an American professional esports and entertainment organization headquartered in Frisco, Texas (Edwards 2021). The organization is known for both its competitive achievements and its role in content creation. OpTic Gaming was founded in 2006 by Casey "OpTic KR3W" Bartow (Kulp 2021). Following a 2021 merger with Envy Gaming, the organization's ownership group includes Hector "H3CZ" Rodriguez, who serves as President of OpTic Gaming, Mike "Hastr0" Rufail as Chief Gaming Officer, and investors from Hersh Interactive Group, among others (Edwards 2021). The organization has 129 employees (PitchBook 2025). OpTic Gaming competes as OpTic Texas in the *Call of Duty* League and fields a team in *Halo*. The organization produces digital content distributed across YouTube and Twitch, maintaining a fanbase known as the "Green Wall" (Edwards 2021). Current sponsors include FanDuel, Mountain Dew, SCUF Gaming, and Razer (Fudge 2024). The organization's estimated annual revenue is $19.7 million, operating through typical esports revenue channels including sponsorships and content creation (GrowJo 2025).

Founding and Early Growth (2006-2014)

OpTic Gaming was founded in 2006 as a *Call of Duty 2* sniping clan by Bartow, with Ryan "J" Musselman joining as co-leader (Kulp 2021). Rodriguez assumed full leadership in 2007, transforming the organization from an online community into a pioneering entertainment brand (Kulp 2021). In 2009, OpTic uploaded its first video to YouTube, establishing what would become the organization's defining characteristic: a content-first approach that prioritized entertainment alongside competition (Nicholson 2021).

The organization's YouTube strategy centered on building individual player brands rather than relying solely on competitive results for revenue. OpTic developed series like "Top 5 Killcams," which invited community submissions and fostered audience engagement, while producing sniping montages and quick-scoping content that showcased player personalities (Nicholson 2021). Rodriguez recruited established content creators such as Shaun "Hutch" Hutchinson, recognizing that entertainment value could generate sustainable income independent of tournament winnings (Nicholson 2021). This approach allowed players to develop their own followings and revenue streams through platforms like YouTube, creating financial stability during a period when many esports organizations struggled to monetize (Helgeson 2014). Players maintained ownership of their individual channels and retained revenue from their content, providing financial independence from tournament performance alone (Helgeson 2014). This model proved influential across the esports industry, as competing organizations began adopting similar content-driven strategies to diversify revenue beyond competition winnings and team salaries.

OpTic entered professional *Call of Duty* competition with *Modern Warfare 2* in 2010, establishing itself as a competitive force while maintaining its content focus (Kulp 2021). The organization continued to find success across multiple *Call of Duty* titles through 2014, building a devoted fanbase known as the "Green Wall" after the organization's signature color (Nicholson

2021). OpTic's dual emphasis on competitive performance and content creation reached mainstream visibility in 2014 when the team secured a gold medal in *Call of Duty: Ghosts* at the X Games, validating esports as a legitimate competitive pursuit to broader audiences (Rubens 2014).

Corporate Ownership Era (2017-2020)

In 2017, Texas Rangers co-owner Neil Leibman and entrepreneur Chris Chaney acquired a ninety percent stake in OpTic Gaming for seventeen million dollars, forming Infinite Esports & Entertainment as a holding company (Wolf 2019; Kulp 2021). Leibman and Chaney served as chair and president of Infinite respectively, with operations relocating from Chicago to Frisco, Texas (Mickunas 2017). Rodriguez initially remained as CEO but relinquished majority control of the organization he had led since 2007, marking OpTic's transition from founder-led operation to corporate ownership structure (Fitch 2022).

Infinite attempted to build a self-sustaining ecosystem around OpTic Gaming by creating subsidiary companies for content production, merchandising, and event management (Fitch 2022). Under the Infinite structure, OpTic relocated and Leibman committed to invest at least ten million dollars over time (Abril 2018). The combined organization grew from an expected fifty employees to approximately seventy by October 2018, when Musselman acknowledged the company had grown too quickly (Abril 2018).

By October 2018, Infinite laid off nineteen employees including Chaney, who was replaced as president by longtime OpTic executive Ryan Musselman (O'Brien 2018). The corporate restructuring reflected financial difficulties as Infinite prepared to list its stake for sale in early 2019 (Wolf 2019).

In June 2019, Immortals Gaming Club acquired Infinite Esports & Entertainment in a deal valued between thirty-five and forty-five million dollars (Wolf 2019). Immortals assumed control of OpTic Gaming along with all of Infinite's financial obligations. Rodriguez, who had retained a minority stake in OpTic, attempted to bid for the organization alongside Chaney but was outbid by Immortals (Wolf 2019). Under Immortals' ownership, Rodriguez departed OpTic and joined NRG Esports as co-CEO while maintaining a minority interest in Immortals Gaming Club (Lace 2020).

In November 2020, Rodriguez reacquired full ownership of the OpTic Gaming brand from Immortals Gaming Club by unwinding his minority interests in Immortals, including his stake in their *League of Legends* franchise (Ocal 2020). The reacquisition restored OpTic to its original leadership after three years of corporate ownership.

Modern Era: Envy Merger and Consolidation (2021-Present)

In November 2021, OpTic Gaming merged with Envy Gaming to form one of North Texas's largest esports organizations (Edwards 2021). The merger was driven by the *Call of Duty* League's franchise model, which required team owners to demonstrate significant capital reserves to maintain operations (Gan 2024). The deal united Rodriguez and Mike "Hastr0" Rufail, longtime competitors since 2008, under a combined ownership structure that could meet

these financial requirements (Šimić 2021). Rodriguez joined the ownership group as President of OpTic Gaming while Rufail remained Chief Gaming Officer, with additional investors including Post Malone, Fedor Holz, Gray Television, and Ken Hersh's Hersh Interactive Group, which had previously invested in Envy Gaming (Edwards 2021). The merger consolidated Envy's Dallas Empire and OpTic Chicago *Call of Duty* League franchises into a single team, OpTic Texas, while the Chicago franchise slot was subsequently sold (Šimić 2021).

The combined entity retained operational facilities in both Dallas and Frisco (Edwards 2021). Envy's twenty-one-thousand-square-foot headquarters in Dallas housed esports operations, while OpTic's Frisco facility served as the primary content production hub (Edwards 2021). In June 2022, the organization retired the Envy brand entirely, rebranding all teams under the OpTic Gaming name except for the Dallas Fuel (Šimić 2022). The following month, OpTic completed its first technology acquisition by purchasing Botisimo, a cross-platform streaming engagement and monetization tool used by over thirty thousand content creators (Mason Bridge 2022). The acquisition demonstrated continued investment in content infrastructure and creator support systems. The organization generates revenue through corporate sponsorships, content monetization across streaming platforms, merchandise sales, and competitive tournament winnings (Mason Bridge 2022). The consolidation represented a return to OpTic's content-first approach while providing the financial infrastructure necessary for modern franchised esports operations, maintaining the entertainment-focused business model that distinguished OpTic's early growth.

The organization maintained substantial reach across digital platforms, with the OpTic brand accumulating 1.61 million YouTube subscribers, 663,000 Instagram followers, 2.9 million X (formerly Twitter) followers, and 6.66 million combined Twitch followers across its content creator network. This social media presence positioned OpTic as the third most-followed esports organization globally (Stream Charts 2025).

-A.S. Fall 2025

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Otome (genre)

Overview

Otome is a game genre that originated in Japan and is designed and marketed specifically towards female audiences. Featuring themes related to romance and relationships, the main goal of Otome games is to establish relationships between a female protagonist, controlled by the player, and one or more male game characters.

Gameplay

Although Otome games are often presented in different forms, including visual novels, dating simulations, and role-playing, there are several common features (Kim 2009). First, they contain a main system that guides the female character to interact with male characters to increase the intimacy level, eventually developing a romantic relationship. Second, they are usually easy to control, which allows the player to focus more on the game plot and relationship development. Finally, such games are often linked to other media forms, such as animation. For example, the game *Code: Realize ~Guardian of Rebirth~* (2014) has an anime series of the same name based on the game plot and characters (2017).

Common Otome games include *Ikémen Sengoku: Romances Across Time* by CYBIRD (June 2015), *Hakuoki: Kyoto Winds* by Idea Factory (September 2015), *Mystic Messenger* by Cheritz (July 2016), and *Mr Love: Queen's Choice* by Papergames (also called *Love and Producer*; December 2017). Initially released on PC, Otome games can now also be found on consoles and mobile platforms.

History

Otome is a Japanese term used to refer to an unmarried young girl. It was first introduced into the video game industry in 1994 with the launch of the first female-oriented game *Angelique*, published by the game company Koei and developed by Koei's all-women team Ruby Party. Released primarily to expand the company’s female player base, *Angelique* features gameplay of building relationships between one female avatar and nine male characters. Although belonging to a completely new genre, *Angelique* had already built a fanbase at the time (Kim 2009), allowing Koei to see the potential of this genre and continue to release more popular titles such as *Harukanaru Toki no Naka de 3* (2004). Koei’s success later attracted other Japanese companies to join the market (Kim 2009). Since then, the popularity of Otome games has continued to grow in Japan. In 2007, 25% of the software sold in Japan was dating simulation games (Taylor 2007).

Otome games were introduced to the United States in 2006 with the release of the English version of *Yo-Jin-Bo The Bodyguards* on PC. This game was published by Hirameki International, a newly formed American company that specialized in translating Japanese Otome games into English. However, the genre did not come to the public's attention until Aksys Games, one of the leading Otome game publishers in the United States today, localized two popular Japanese console games, *Hakuoki: Demon of the Fleeting Blossom* (2012) and *Amnesia: Memories* (2015), which became among the best-selling Otome games in the U.S. (Ganzon 2017b).

As interest in Otome games grew among the American public, original games developed in English began to emerge, albeit in small numbers. Voltage, a Japanese game development and publishing company, founded Voltage Entertainment USA in San Francisco and began to release original titles such as *My Lover's a Thief* (2012) and *My Killer Romance* (2013), both of which incorporated more westernized elements and themes to target American audiences (Morris 2017).

Monetization Models

Otome games released on PC and consoles usually follow a one-time purchase model, where consumers pay a certain amount to access all the game content. On the other hand, mobile Otome games typically adopt a freemium model with microtransactions (Sellier 2021). Common in-game purchase options include “offerings,” which are virtual objects used to “please” characters and raise the intimacy level (Giard 2021). Another is the gacha system, which gives players access to random new characters or new pictures of characters (Giard 2021; Sellier 2021). Furthermore, progress gates, intentional breaks in the story plot, are employed to incentivize players to spend money in order to continue the narrative or unlock new stories (Sellier 2021). In addition, the economy of an Otome game depends heavily on selling derivative products and experiences of its IP, especially to its game fandom. Such practice even started with *Angelique*, when a periodical *Love Love Tsuushin* was released to publish the latest game-related products and comics (Kim, 2009). Nowadays, Otome game companies offer drama CDs, recorded audio of game characters’ stories, CDs, merchandise, and rhythm games to encourage fan consumption (Ganzon 2017a; Giard 2021).

Market Landscape

The market landscape for Otome games varies across geographic regions. In Japan, the Otome game industry is estimated to be around $733 million in 2020 (Mochizuki 2021). The market is diverse, with multiple companies producing original titles. One of the key industry players is Coly, a mobile Otome game design company founded in 2015. After releasing 6 games, the company's equity value is now over $225 million (Gunia 2021). Another leading company is CYBIRD founded in 1998. Its mobile title *Ikemen Bakumatsu* (2013) has been downloaded

between 500,000 to 1 million times in Japan (Morris 2018). And its localized English version of *Destined to Love* (2015) has generated more than 100,000 downloads on Google Play (Morris 2017).

In the United States, localization and original development of Otome games are occurring simultaneously. Aksys Games dominates the market for localization of Japanese games and is ranked in the Top 10 Metacritic Publishers of 2020 (Aksys Games, n.d.). Focusing on PC and consoles, Aksys currently has more than 40 games. For original content, Voltage remains one of the leading companies in Japan and the U.S. In 2021, it generated over $12 million revenue (Shared Research 2021). It currently has more than 100 romance titles, half of which are in English and more than 20 are original games. In 2021, it generated more than $12 million in revenue (Shared Research 2021). And its game apps are downloaded by more than 100,000 people each month, bringing its average monthly revenue to more than $4 million in both markets combined (Shared Research 2021). Specifically, Voltage's most popular English gaming platform *Love 365: Find Your Story* (2017), incorporating all its mobile games into one app, has been downloaded more than a million times and generates an average monthly revenue per user about $26 (Shared Research 2021).

The Otome game market in China is dominated by Papergames, a company specializing in developing female-oriented games. Its game *Mr Love: Queen's Choice* (2017) has been downloaded more than 7 million times since its launch, generating more than $31 million in revenue (Feng 2018). It has further created a wave of Otome games in China with various successors such as *Yujian Love* (2019) and *Tears of Themis* (2020).

Overall, there is a growing trend toward globalization, where Otome games are released in more than one language or localized in a new market. *Mystic Messenger* by Cheritz, a South Korean-based game company, was released in Korean, Mandarin, and English (2016). *Mr Love: Queen's Choice* was also released in English and Japanese in 2019. Voltages' *even if TEMPEST*, scheduled for release in 2022, is also available in English and Japanese (2021). Additionally, two Idea Factory games originally in Japanese and English will be released in Traditional Chinese in the coming year (Newsdirectory3 2021).

- V.H., Fall 2021

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Overwolf

Overview

Overwolf, a company founded by Uri Marchand in 2010 with only a $100k seed investment, is now one of the biggest user-generated content platforms in the gaming industry. Overwolf provides a platform for the in-game applications and modifications (Mods) built by gamers to be shared and downloaded worldwide. Based in Tel Aviv, Israel, Overwolf now has a team of over 90 workers and total funding of $149 million from companies like Intel, Samsung, and Ubisoft (Crunchbase 2022).

As a PC software platform, Overwolf centers around two major features: building in-game applications and publishing mods (Video game modifications). Developers can use its Software Development Kit to create applications and mods for games, while gamers download user-generated content through the platform for over 800 PC games, including popular IPs like League of Legends, Call of Duty, and Fortnite. In 2022, Overwolf has over 33 million active monthly gamers and 98 thousand developers (contracted and independent), culminating in over 15 billion yearly downloads on the platform.

History

The Overwolf Client was initially launched in August 2011 as a chat assistant plug-in for online games like World of Warcraft, enhancing the existing social system in these games to deepen the player bond (Takahashi 2011). After focusing on building its own game extensions and partnering with companies like Teamspeak, Overowlf decided to make a step forward. In 2013, as the clients hit the 1 million user mark, the company CEO Uri Marchand announced the launch of the Overwolf platform, which transformed into the Overwolf Client that players download today.

Overwolf Client is an app store for gamers to download extensions and mods for various PC games. Nonetheless, for developers, Overwolf provides another assisting application through CurseForge, which has samples and tutorials for the construction of applications (SDK). Gamers could find the extension they are looking for through the search bar or under different game categories. All the downloaded extensions and mods will be saved in the library for gamers to activate. Like all other app stores, the Overwolf Client also has sufficient social components that provide community reviews for extension and connection to the developer.

User-Generated Content

User-Generated Content (UGC) is any original content - videos, blogs, texts, etc.- created by people and individual customers instead of companies and brands (Krumm 2008). On Overwolf's platform, the user-generated contents are in-game applications and mods.

In-game applications are not built by game developers. Instead, they are built by individual gamers and third-party developers. In-game applications usually provide players additional in-game assistance or compensate for missing features in the original game. However, in-game

applications do not directly interfere with the game's content or change the fundamental of the gameplay. They are different from cheat codes and hacks, which disrupt the game code itself and affect fairness.

For example, Porofessor.gg, a popular in-game application for League of Legends on Overwolf, automatically generates data for the user on other players in the game, as it also provides advice and suggestions for the gameplay. As of December 12, 2022, Porofessor.gg has generated over 8.5 million downloads (Overwolf 2022). Similar in-game apps function as tools that allow players to easily access game-related data, which might take minutes to search on a website. Another common category of in-game apps on Overwolf is the highlight catcher, allowing users to capture gameplay moments without additional operations outside the game.

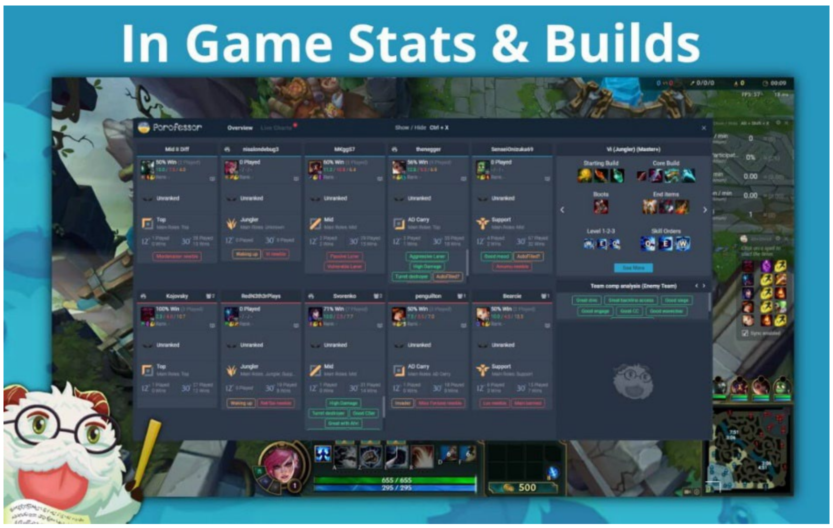

Figure 1: Porofessor.gg in-game interface (Overwolf Appstore)

On the other hand, the history of in-game modifications dates back to the 1983 game Lode Runner. In this early example of game modding, it functioned as a level editor, which allows players to save levels (Perron 2014). Game modding allows players to manipulate in-game content, including changing visual effects and creating original gameplay modes. Many popular game IPs, such as DOTA and Doom, originated from game mods developed by players (Nvidia 2016). In recent years, game mods are still extremely popular among players despite the regulation by game publishers, especially in Minecraft and Roblox.

Monetization Model

Overwolf provides a free platform for gamers and a free developing kit – CurseForge, for developers. In order to fulfill sustainable operations and attract developers to stay on the platform, monetization has become the most critical part of this ecosystem. The main monetization method for creators on Overwolf is to add "in-app ads" or subscription plans on their apps. Just like the Apple Appstore, Overwolf took a percentage of the revenue. For in-game apps, creators get 70% of sales via Overwolf, and the company gets 30%. For game mod builders, they get 50% of the revenue, while Overwolf and the game developer each get 25% (Takahashi 2021). According to Overwolf's annual report in 2020, more than 85% of its revenue

came from ads and subscriptions, while the next 11% came from brand activations and 3% from mobile ads (Tov-Ly 2020).

On June 2021, Overwolf announced it would pay out $29 million to mod and app creators in ad and subscription revenue. However, Overwolf's monetization overview site states that "the minimum amount for each payment by Overwolf is $200(net) based on the agreed revenue share (Overwolf 2022)". This means developers must make at least $200 in ads and subscriptions to cash out money. Although Overwolf will roll the amount of less than $200 to the next payment period until it exceeds the minimum amount, it could be difficult for small app developers to monetize on Overwolf. Nevertheless, top in-game developers can make more than five or six figures monthly.

Acquisition and Expansion

Recently, Overwolf has been utilizing acquisitions to solidify its dominance in the industry while expanding its content library to attract new users. On March 2022, Overwolf announced it would acquire Tebex for $29 million (Kaser 2022). Tebex is a platform that allows users to monetize private servers in games like Minecraft and Rust. This acquisition enables Overwolf to expand its business and monetization model to a new creator category – server owners. Including private game server owners helps Overwolf further enlarge its in-game creator economy.

Prior to this recent acquisition, Overwolf had already acquired Twitch's mod management platform CurseForge for an undisclosed amount in June 2020 (Sinclair 2020). This acquisition fully opened Overwolf's platform to mod authors. The previous CurseForge users will receive technical support, infrastructure, and even more monetization from Overwolf. With the offer of increasing revenue by 50% to mod developers, CurseForge users have emerged into the Overwolf in-game creator ecosystem (Techcrunch 2020). This acquisition brought new users and markets to Overwolf, as it also provided essential creative tools for users to develop in-game mods. Now CurseForge has become a fundamental element of Overwolf's business.

Meanwhile, Overwolf has never stopped its expansion into emerging technologies such as the metaverse. In January 2022, Overwolf announced investing in Syn City, the mafia metaverse game. The investment demonstrates an effort for Overwolf to explore new user-generated content opportunities in the metaverse, potentially allowing users to create NFT content and new monetization methods based on blockchain technology. Overwolf's ambition towards the metaverse was expressed through CMO Shahar Sorek's comment on the acquisition in 2022, "Overwolf believes the future of games is in user-generated content, and part of that future lies with enabling creators to build services with and around NFTs" (Kaser 2022).

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Papergames

Overview

Papergames, headquartered in Shanghai, is a growing internet company that positioned itself in the interactive entertainment industry. Founded in 2013, Papergames is now taking the leading position in the niche female-oriented game market. The company, which is first known to the public for popularity among female players, now has two distinctive branches: the Nikki cloth changing series, and the Love series. By 2020, Papergames have produced in total four different titles and attracted over a hundred million players ("About Papergames" 2013).

The Development of Papergames

The virtual character Nikki, whose Chinese name is Nuan Nuan, was created in 2012 before the establishment of Papergames by four people with the same interests. Back then, the Apple App Store did not have restriction on segregating the market by countries. For the purpose of attracting more users, the production team, under the leadership of Runhao Yao who later became the CEO of Papergames, launched the game Nikki Up2U in three different languages: Chinese, English, and Japanese (Youxi Putao 2019). The game turned out to be popular as there was no competition in the dress up game niche. In 2013, Yao started Papergames in Suzhou with a team of seven to work on a sequel and named it Nikki Up2U2: World Traveler. Launched in 2014, Nikki Up2U2: World traveler became the first mainstream dress-up game in China due to the company's experience in the dress-up genre. In 2015, Papergame produced Miracle Nikki and had Tencent as the publisher of the game. With Tencent's strength in operation, Miracle Nikki had achieved over a hundred million users in mainland China. Such popularity and success lead Nikki go global. Miracle Nikki was adapted and localized in east Asia area as well as in western countries. With the advancement of smartphone performance, Papergames launched Shining Nikki, the first 3D modeling dress-up Game ("About Papergames" 2013).

In 2017, Papergames launched Love and Producer, a revolutionary dating simulation mobile game with supernatural elements. Papergames praised the game as "the most successful and topical female-oriented game in 2017" ("About Papergames" 2013).

Papergames raised its initial round of capital in 2014 from IDG Capital, following round B of 150 million led by Oriental Securities in 2015 ("Papergames raised 150 million in round B" 2015). By 2018, the company is estimated to worth over one billion RMB ("Papergames" 2018). Papergames signed a pre-listing tutoring agreement with China Merchant Securities in 2016 but ceased the agreement in 2019 for adjustment in IPO planning (Zhuoying Zheng 2019).

Female-oriented strategy

In China, the number of female gamers has reached 300 million in 2019, accounts for 46.5% of the total domestic gamers, yet revenue generated by female gamers only accounts for 22.8% of the total revenue ("2019 gaming industry white paper" 2019). The potential of female gamers has not been fully explored yet. As a studio that gives birth to several titles that mainly cater the need of female gamers, Papergames performed well not only at attracting female gamers but also

at monetizing its popularity. For its phenomenal love game Love and Producer, of the 7 million downloads, 95% percent of all downloads are done by female gamers ("Data on Love and Producers" 2018).

The studio owes its success in the niche to its ability to generate high quality content that female gamers like. According to Runhao Yao, the CEO of Papergames, the most important thing the company values is the passion for creation ("Runhao Yao, behind the scenes of Shining Nikki" 2020). The content here not only includes the main plot of the game, but also includes other authentic experience the game offers to its users. The audio content Papergames provides is of the highest level in the industry: the voice actors behind the characters are the most well-known and recognized by female players in China. The visual content is also carefully refined. Papergames employs self-developed rendering technology to better present the details of clothes in three dimensions in Shining Nikki to satisfy female gamers' high requirement for complex and exquisite details.

In order to make it more relatable to female players, Papergames adjusts the overall gaming experience to be more real-life like. Greeting words of NPCs in the games vary based on time, preference, and vocation information provided by the players. In the love game, to deliver an authentic feeling of having a relationship, the instant messaging app is simulated in the game. Through the app-like interface in the game, players are able to chat with the characters, comment their posts, get replies, and even receive phone calls from them. Papergames is able to monetize these experiences as much of the content can only be unlocked through loot boxes that usually require microtransaction. Responding to female players' indifference to purely numerical increase, Papergames adds more feedback to its simulation system. Players will gradually unlock artifacts such as voice messages, new plots, new maps, and images after feeding enough resources to a certain character. Apart from getting a sense of fulfillment, such tactics tighten the emotional connection between the players and the virtual characters, increase user stickiness, and encourage microtransactions. The difficulty at the beginning of the games is also lowered to retain non-hardcore gamers through adding guidance, adjusting numerical requirement, returning resources if defeated.

Papergames addresses female players' preference for the social elements inside and outside of the game. To better connect with the core players and enhance the emotional bound, Papergames attach great importance to building its gamer's community on social media. For each title it has, there is an official account that posts regularly about game updates, events and fandom works. The virtue characters in the games even have their own accounts where they post contents and interact with followers use the same tone as in the games. It turns out the users are pretty buying into these efforts Papergames made: the followers of each account exceed 500 thousand.

Exploring the Potential of IP

In 2018, Zeyan Li, the most popular character in Love and Producer came to the mass's eyes because a legion of Li's self-proclaimed girlfriends rented the one of the biggest LED billboard in Shenzhen to celebrate the birthday and send wishes to their virtual boyfriend ("All girls are crazy about celebrating his birthday" 2018). This leads to a viral discussion of women's willingness to pay and purchase ability with regard to virtual characters. However, this verifies the feasibility of expanding the characters into other fields for further profitability. Papergames

attempts to shape its IPs into more real-life-like virtual idols. Nikki, which is the most famous one among all the IPs, is on the way of this transformation. In 2019, not only did Papergames release the music video “Another Nikki” sang by Nikki, but it also released an interviewing clip with Nikki where Nikki talked about the inspiration of the song and feeling during the filming of the video (“Shining Nikki - Bilibili" 2020).The characters even get the chance of being ambassadors for much pervasive brand in China, for instance, the main characters from Love and Producer collaborated with KFC (Digitaling 2018) and Nikki became the brand ambassador for Lux (“Merchandise- Papergames” 2013). Papergames also steps into animation. Its subsidiary ompany Paper Pictures was established in 2018 (Qcc 2020). The first animation derived from the Love and Producer is to be run later in 2020.

- J. T., Spring 2020

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Patreon

Overview

Patreon is the largest membership-based crowdfunding platform for content creators, including webcomic artists, Youtubers, streamers, musicians, and game developers. The platform acts as a middleman business infrastructure that introduces existing fans and new subscribers to the game developers. It allows independent game developers to communicate with their most passionate fans and generate more income as their fans pledge to make monthly patrons. The fans or patrons who “pledge” or register for a monthly subscription will be treated as a member of a community rather than a donor by receiving exclusive benefits in return. They can increase the benefits they receive by pledging to increase their monthly subscription payment. The patrons can cease their support at any time. In essence, Patreon focuses on the idea that a project can be funded through a large number of individuals providing a small amount of funds each.
As of 2020, there are more than 100,000 creators on Patreon (Brier 2019).
Patreon can be downloaded as a mobile application or accessed through patreon.com.

Functions of Patreon

Patreon is for game developers who can continuously create fresh content and need an upfront payment to complete a game project. The platform ensures a stable stream of monthly revenue if the game developer can continue to sustain their fan base and showcase development in their game creation process. Therefore, the greatest significance of Patreon is its ability to help game developers monetize fan supports. As stated on its website, “creators with the best retention often treat their patron base as their community, their content team, and their top priority for personal engagement” (Patreon 2020).

Game developers get started by setting up a Patreon account as a creator and providing a brief description of the type of content they make. They will then need to create "tiers" or specifications of the benefits that the patron may receive after pledging to pay each specific amount. The benefits can be physical (e.g. merchandise) or digital (e.g. ability to give feedback, early access) to be rewarded one time or monthly depending on the game developer’s choice. Once a patron pledges to a game developer, they will gain immediate access to the specified benefits and will be charged on the first of the following month (Riley 2020). The increase in benefits in relation to the amount of money pledge acts as an incentive for patrons to pay the game developers more monthly.

For example, the YandereDev, the game developer for the stealth psychological horror video game Yandere Simulators, earns over $2000 in pledges monthly by releasing free to download the beta, uploading relevant video content, and discussing game development with the fans via a discord channel. Those that pledge $100 will be given credit in the game’s title screen.

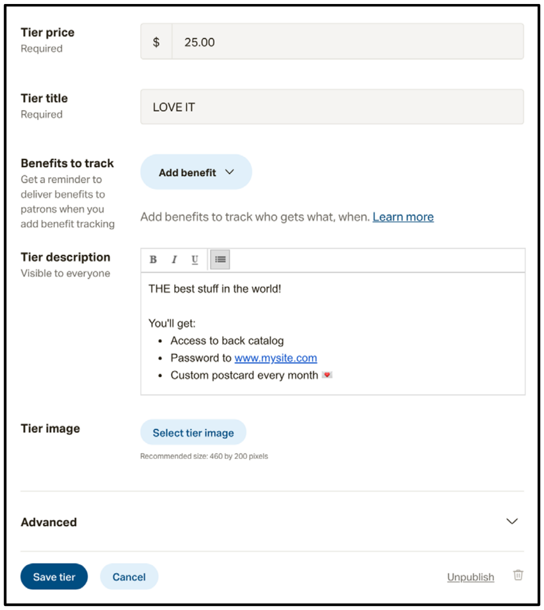

Figure1: Screen capture of the Patreon Tier Creation Page as of April 24, 2020

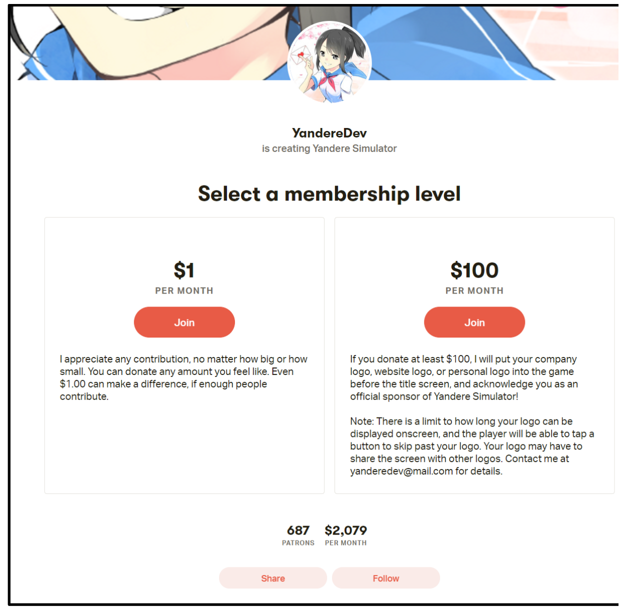

Figure 2: Screen capture of the Patreon Tiers as of April 24, 2020

The platform is initially free but will charge a small commission fee once the creators start to have subscribers. It will charge 5%, 8%, or 12% of the revenue earned by the creators depending on the selected support plans of Lite, Pro, or Premium (Patreon 2020). The plan that charges more commission fees will provide the creators with more business support, including free support from experts and merchandise shipping (Patreon 2020).

As of January 23, 2019, Patreon expected to "process more than $500 million in payments" within the year (Peckham 2019). Given the average 10% revenue cut, the platform generated $50 million in revenue in 2019 (Peckham 2019).

Development for the Game Industry

Patreon was founded by Sam Yam and Jack Conte in May 2013 with the aim to gain a stable income from creating Youtube videos. Youtube is a video streaming platform that also allows creators and game developers to earn revenue but indirectly from shares earned from advertising and corporate sponsorship. Indirect revenue from advertisements faced uncertainties of "ad-blocking software, privacy regulations, and biased content," so many developers seek a more stable alternative (Peukert 2019). In a 2019 interview with Jack Conte, he reportedly earned just $150 in ad revenue although his music video had millions of views (Brier 2019). Patreon became an alternative to advertising based income channels by focusing on encouraging "small payments for small rewards" directly from fans (Brier 2019).

By focusing on crowdfunding, Patreon also lowers the barrier to enter the game development industry for individual gaame developers. Steam, a video game digital distribution service, also allows independent third-party publishers to earn income through the platform. However, the platform was criticized by some creators as not providing sufficient visibility for creative games that do not fit in with the traditional popular games stereotype. In October 2018, Steam altered the game discoverability algorithm, contributing to the decline in traffic of some unconventional indie games (Gordon 2019). Together with the doubling of the number of games available on Steam in the last two years, developers find it challenging to gain income from developing non-commercial indie games (Taylor 2018). Game developers like Jim Rossignol, the founder of the game studio Big Robot, stated that he sought Patreon as an additional platform of game distribution since it allows his team to create games without worrying whether it will be discovered or not (Gordon 2019).

Controversies

In December 2017, Patreon attempted to increase its revenue by placing the transaction fee on the patrons instead of on the creators. With the new policy, every $1 pledge amount would include an extra $0.38 fee, while a $5 pledge comes with an extra $0.50 (Alexander 2017). The 38% and 10% rise in pledging costs disincentivize patrons from pledging, contributing to a large withdrawal of pledges (Alexander 2017). As a result, Patreon rolled back the changes and apologized for the inconveniences that it may have caused.

In 2019, the platform's revenue model was criticized as "not sustainable as it sees rapid growth" (Bgomezreports 2019). With the company's current revenue model, 90% of the income gained by the patronage will be given to the creators, 5% of it will be for transaction fees, and the remaining 5% will be for the company to keep (Bgomezreports 2019). With the 5% revenue cut, the platform's CEO Jack Conte believed that it will be increasingly challenging for Patreon to maintain its profit. The number of patrons supporting the content creators increased by 1 million in 2019. Since 2013, the company has paid over $1 billion to the content creators (Bgomezreports 2019). To sustain the platform, Conte stated that Patreon will need to "provide creators with new value services" that will help increase the company's revenue (Bgomezreports 2019). For example, Patreon may consider reducing the 90% payout to the creators but provide them with business support functions such as free business consultant from experts, or free merchandise designs (Bgomezreports 2019).

E.W., Spring 2020

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PC Bang

Overview

A PC Bang is the term for an internet cafe in South Korea, with *PC* standing for "personal computer," while *bang* is a Korean word meaning "room." Designed primarily to provide a full gaming experience, PC Bangs offer a 24/7 space where users pay by the hour to access high-performance computers, popular single- and multiplayer games, and low-latency broadband connections (Shevchenko, 2024). Culturally, PC Bangs function as social hubs for youth and communal spaces for group play, introducing users to the broader e-sports ecosystem (Huhh 2007, 6). Many Korean game publishers and online developers maintain partnerships with PC Bangs to deliver in-game incentives or exclusive deals, helping drive usage (Shevchenko, 2024). In addition to independently operated locations, the market is anchored by major national PC Bang chains such as iSense and iSenseLeague, 241 and 173 locations respectively as of 2024, (금융치료사 피터 2025). Over time, PC Bangs have adapted in response to shifts in regulatory pressures and social trends, demonstrating their ability to evolve within Korea's dynamic gaming culture (Jin and Karhulahti 2019).

Business Model and Economic Impact

PC Bangs are organized around a time-based access system in which customers pay for the duration of computer use. The typical rate is ₩1,000 per hour (about $1 USD), though some PC Bangs offer discounts for bulk or membership packages (Shevchenko 2024). In addition to usage fees, about 40% of PC Bang revenue now comes from food and beverage sales, with snacks and instant meals delivered directly to gaming stations (Yoon 2022). Perks from online games, such as bonus items or in-game currency, also encourage players to log in from a PC Bang, which helps drive consistent patronage and strengthens the tie between PC Bang operators and game publishers (No 2023). Indeed, PC bangs have increasingly become collaborative spaces, partnering with game companies to offer exclusive experiences. For instance, in the fall of 2025, Nexon partnered with dedicated PC-bang operators to open Maple Agit, a permanent themed venue for the MapleStory game IP, offering official branded merchandise and exclusive in-game perks (Kim 2025).

This integrated model not only sustains customers but also contributes to South Korea's gaming economy. In 2023, the game industry employed 84,870 people with 33,187 employees in PC Bang and gaming arcades, representing 39.1% of the total workforce (Korea Creative Content Agency 2024). While the COVID-19 pandemic lockdowns led to significant decreases in PC Bang branches—declining 29.7% from 10,648 in 2017 to 7,484 in 2023 (No 2023)—the revenue of PC Bang operations has slowly recovered, increasing by 6.5% in 2023 (Korea Creative Content Agency 2024, 5). This revenue increase represents PC Bangs' 8.7% market share of South Korea's ₩22.96 trillion domestic game market revenue, making them the third largest contributor to the national game industry's revenue after mobile and PC games (Korea Creative Content Agency 2024). This shift in market trend shows how, despite the post-COVID decrease in branches, PC Bangs have stayed economically viable through attracting new young gamers and shifting their business model to include food and beverage sales.

History of PC Bangs

The development of PC Bangs can be traced to Korea's digital culture in the mid-1990s. Early forms of internet cafs, most notably the Bit Communication Cafes (BNCs), began to appear as early as 1994, offering text-based bulletin boards and later expanding to email, printing, and basic online services. By 1996, commercial cafes featuring networked computers and hourly fees had emerged, establishing the core business model PC Bangs would later adopt (Jin 2020, 6). Although PC Bangs originated before the 1997 IMF financial crisis, their rapid growth is closely tied to the post-IMF period. During this time, public demand for inexpensive entertainment and accessible internet surged. In response, the government accelerated broadband investment, liberalized telecommunications policies, and promoted widespread digital access (Huhh 2007, 4). The small capital and easy entry business model attracted newly unemployed workers to open PC Bangs (Kang 2014, 57). While government-run internet centers failed to gain traction, private entrepreneurs found success in transforming early internet cafes into an affordable and vibrant PC Bang industry (Stewart 2004, 67).

PC Bang as a Gaming Community

From a venue for affordable internet use, PC Bangs underwent further transformation with the release of the multiplayer real-time strategy game *StarCraft* (1998). *StarCraft* transformed casual internet browsing space into social gaming hubs built around spectator culture, and group play (Han 2015). With PC Bangs purchasing one million game discs, Korea contributed one third of *StarCraft*'s global sales in 1998 (Rea 2016, 22). *StarCraft* not only brought in players, but also attracted spectators, allowing for the rapid growth of PC Bangs: from about 100 branches in 1997 to over 13,000 by 1999 (Rea 2016, 22). Whereas earlier PC Bangs emphasized general internet use, *StarCraft* catalyzed a new gaming-centered culture that positioned PC Bangs as communal entertainment spaces and early incubators of Korea's emerging esports scene.

Relation to Esports

The origins of professional gaming in Korea is closely associated with the social dynamics of PC bangs. *StarCraft* inspired PC Bang owners to host friendly competitions, which progressed to the formation of professional game teams and leagues (Jin 2020, 3). PC Bangs then began to sponsor individual players and teams, paving the scene for professional Korean esports (Rea 2016, 22). As PC bangs multiplied, the number of esports titles available in Korea also grew quickly, from 25 esports games in 1999 to 51 by 2000 (Jin 2020, 9). Consequently, the Korean Esports Players Association was established in 2000 as a means to regulate professional gamers and competitions on a national level (Leroux-Parra 2020). PC Bang infrastructure—including its 24/7, low-cost, professional gaming set up— also plays a role in producing skilled programmers ("E-sports" n.d.). Clearly, PC Bang lays the foundation for the nation's esports boom and continues to drive the industry's rapid expansion.

Demographics and Cultural Significance

The demographic patterns of PC Bangs are concentrated among teenagers and young adult males who prefer competitive PC-based games (jhin 2025). Even the earliest iterations of PC Bangs were mainly consumed by young men in their 20s to 30s (jhin 2025). This trend continues now, with individuals aged 17 to 30 accounting for 81.6% of all PC Bang users, and male users comprising 80.8% of the clientele (Lee 2021). Although PC Bangs are widely popular, public perception has often been shaped by media narratives that frame them as sites of gaming addiction and social isolation, particularly for youth (Chee 2005). Despite these concerns, PC Bangs function as important social spaces where young people gather after school, socialize with peers, and build community amidst the high-pressure academic environment they face (Song 2017).

Regulation and Renovation

Government regulation and public controversy have shaped the development of PC Bangs. In 2011, regulations were introduced as concerns grew over gaming addiction, specifically for youth. For instance, Korean law restricts minors' access to PC Bangs to the hours between 9am–10pm, requiring youth to have an accompanying parent or approved guardian outside this window (Korea Ministry of Government Legislation 2025). With ongoing public concerns about the health and safety conditions of PC Bangs for adults, the government went on to introduce a smoking ban in PC Bangs in 2013 (Kim 2013). Recent PC Bang renovations show the industry's effort to rebrand PC Bangs as safe, modern entertainment hubs. The newly opened Redforce PC Bang in Gwangju, for instance, designates separate spaces for group play rooms, premium materials to offer cleanliness, and a shop-in-shop model to provide expanded food/beverage and gaming goods options (Lee 2025). Together, regulation, public concern, and market innovation continue to shape PC Bangs' evolving identity.

-A.P., Fall 2025

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Playstation Network

Overview

Launched in 2006, Playstation Network, or PSN is an online interactive digital media service provided to users by Sony Interactive Entertainment. With the platform, users can communicate socially via multiplayer games and the service is accessible via Sony's Playstation Vita, Playstation 3, Playstation 4, and Playstation 5 consoles. Currently extending to other mediums including smartphones/tablets and TVs, Playstation Network allows for purchases of downloadable content, in-game active voice chat, and a trophy system attributed to milestones completed within games. These services are available on Sony's online marketplace, the Playstation Store. The Playstation Network also extends to Playstation Plus, a subscription service for Playstation users looking to play multiplayer games and enjoy the social features of the Playstation Network, along with Playstation Music, a music streaming service powered by Spotify, and finally Playstation Now, Sony's cloud gaming service. Since April 2016, Sony was reported having over 110 million Playstation Network users, with 109 million being active recurring subscribers as of march 2021(Sony Group Corp. 2022).

History

The Playstation Network was launched in 2006 in order to compete with Microsoft's Xbox Live. In the year 2000, Sony launched its Playstation 2 console which sold over 155 million units worldwide, garnering it the title, best selling video game console of all time. At the same time, Microsoft's first Xbox was designed to compete with Sony's Playstation 2 however, they focused on the online experience and aspect of gaming. The Xbox was first released in November of 2001 and Xbox Live was made available to consumers a full year later on November 15, 2002, for a price of $49.95 a year (Varanini, 2002). Although the Playstation 2 was successful, the device lacked an ease of network connectivity for its limited library of games with online access. Many of the consoles required an external adapter to get online capability and Sony did not have a clear-cut path for the direction in which the company wanted to take the online features of the games which had the service (Sony Computer Entertainment America Inc. 2003). A few years later, when developing the Playstation 3, Sony had decided to take a more calculated route for the online capability of the console. Sony had goals to create an online world, streamlining connectivity and services that would allow users to maintain constant communication and unification. In 2006 when unveiling the Playstation 3 at a pre-E3 press conference, Sony Computer Entertainment's chief technical officer Masa Chatani explained to the audience, "the PS3 would be constantly in touch with a [PlayStation World network] fundamentally based on community, communication commerce, and content…[subscribers] could exchange unique characters and items through the network, much like Microsoft's Xbox Live Marketplace" (Thorsen, 2009). Thus, was born Sony's online gaming and media delivery service for PlayStation consoles and other devices.

Subscription and Features

The Playstation Network allows for Master accounts and Sub accounts to be used on their platform. Sub accounts are designed for children with restrictions being set by Master account holders. Users can register with their email address and a strong password of their choosing.

Users can then create a username or online identification which will be tagged to a user's Playstation Network profile. After many years of persuasion and critique from fans, In 2019, Sony introduced PSN users to a feature where they could change their PSN ID, something that used to be permanent and could not be altered upon creation (Yin-Poole, 2018).

Sony ensured to incorporate a trophy system much like Microsoft's Xbox Live achievement system. Trophies are in game rewards given to players, attributed to milestones completed within games. The more trophies a player collected, the more they leveled up their playstation profile which let users automatically track their games and trophies from PSN, with stats, leaderboards, through the online community. Trophies were also tiered by common, rare, very rare, and ultra rare popularities, based on the percentage of people who have unlocked them (Lempel, 2008). The trophy system was much like a digital championship with four different types of trophies eligible for collection including bronze, silver, gold and platinum. Trophy tiers were assigned based on the difficulty level of the milestone reached in game. Platinum trophies were awarded to players who were able to collect all trophies of their base game.

In June of 2010, Sony released Playstation Plus, an optional premium subscription service to compliment the already free Playstation Network. Playstation Plus was originally composed of early access to upcoming games, recurring Playstation store discounts, cloud storage for games, and Playstation exclusive content.

Playstation Plus is available to users at an annual, quarterly or monthly subscription. Prices are $59.99, $24.99, and $9.99 respectively, although originally priced at $49.99 for a one-year subscription and $17.99 for a 3 year subscription (Reilly, 2012). The service is essential for Playstation online gaming as it is required in order to play multiplayer.

As a Playstation Plus Member, users get access to a monthly library of games which can be downloaded for immediate play at one's time of choosing. Users will be in possession of their downloaded games until they are no longer a member of Playstation Plus. If a membership is renewed, the games will become available to the user once again.

The Playstation Plus Collection was announced in September of 2020 as an initiative for Playstation Plus members who purchased a Playstation 5. Users would have access to many of the Playstation 4's critically acclaimed games including the likes of "God of War" and "Uncharted 4: A Thief's End." Currently, Sony is focused on expanding the subscription tiers of Playstation Plus with PlayStation Plus Extra, which aims to provide the user with access of up to 400 PS4 and PS5 games as downloadable and streamable titles, and PlayStation Plus Premium which will add even more access to the streaming of up to 340 games from the PlayStation, PS2, PS3, and PSP and download of all but the PS3 games (Ryan, 2022).

Revenue

According to Sony Group's financial report for the second quarter of the 2021 fiscal year, PlayStation Store posted its biggest second quarter revenue ever, raking in more than $2.86 billion. A total of 104 million monthly active users spent an average of $36.27 on PSN over those 3 months along with digital game sales (via PS Store) which increased by 1.1 percent year-on-year during the same period. Last but not least, sales of add-on content – including DLCs and

microtransactions – increased by 4.7 percent year-on-year in Q2, and network services sales (PS Plus) increased by 4.7 percent year-on-year (Khan, 2021). Safe to say Sony had a profitable year.

Intrusion

On April 20th, 2011, the Playstation Network became temporarily inaccessible for a period of 23 days following a security breach from hackers. The outage was the longest PSN had been offline since its inception in 2006. As a recompensation to users for their time off, Sony introduced users to a welcome back program after the outage which gave users a 1 month free subscription of PS Plus and existing PS Plus members a 3 month free subscription. This was a lesson to Sony which prompted them to change Playstation Network's license agreement and tighten up on their security.

- C.B.R., Spring 2022

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PlayStation VR

Overview

Project Morpheus is a virtual reality headset prototype that was introduced in the 2014 Game Developers Conference (McWhertor, 2014). Over the two-year period, Sony gathered suggestions from developers for improvements on its prototype and allowed developers and publishers to develop software titles for PS VR. In October 2016, Sony officially launched its product as the PlayStation VR. The headset was priced at $399 USD per device and was designed to be fully functional on any PS4 console.

Sony VR Development

Virtual reality has long been the developing technology trend and has been predicted to gain significant growth in market size in the gaming industry, but it was not until recently that a number of prototypes made their appearances in the market. Prototypes such as HTC VIVE and Oculus Rift were introduced to the market on March 2015 and March 2016, respectively. On October 2016, Sony joined the VR industry by bringing in its PlayStation VR, opening up a whole new experience in the gaming industry (Sony, 2016).

Sony's interest in virtual reality can be traced back to 1995 where the earliest prototype Visortron was introduced. With Visortron's two tiny LCD screens displaying right in the users' sights, it was able to reproduce 3D images. Users were able to enjoy their own mini movie theater simply by plugging Visortron into Sony's video player (Popular Science, 1993). In 1997, Sony started its head-mounted Glasstron series including the well-known HMZ-T1 which was introduced in 2001. Sony's focus for the new product was to improve 3D video definition by moving from LCD screens to OLED screens to create a more pleasant and colorful image (McCracken, 2012). HMZ-T1 headset had a hefty $799 price tag which became one of the factors that kept the customers from purchasing the product. With pricing as a priority, PlayStation VR (PS VR) arrives in 2016 with a lower price of $399 USD which is much more reasonable and affordable for gamers to own.

Although Sony started its own VR project before Oculus was publicly funded, Oculus launched its own VR few months before PS VR was announced. The attention for VR ecosystem garnered by Oculus Rift and the development of small yet high-resolution screens in the smartphone industry were both beneficial for Sony's PS VR (Rosenberg, 2014). VR products are able to lower its cost while also improving the quality of experience thanks to rapid technology advancements.

Functions of PS VR

PS VR is the most current member of the PS4 family that allows users to access the world of virtual reality just by connecting the headset to the console. With VR technology, users are not only able to immerse themselves in the gaming world, but also take a walk on the surface of Mars.

Like most headsets, PS VR's headbands allow users to adjust to the straps for comfort and secure placements. PS VR is able to provide a 360-degree vision with its 5.7'' OLED screen powering up to 120 frames per second (PlayStation, 2019). In addition of the 3D audio immersion technology, users are able to perceive which direction and how far the sound is coming from. The PlayStation Camera consists of dual lenses and 3D depth sensors to track the headset, PlayStation Move controller, and DUALSHOCK 4 light bar. There are 9 LEDs on the front, back, and sides of the headset to accurately send signals to the PlayStation Camera (PlayStation, 2019). The PlayStation Move controller with its motion tracking sensors enables users to glance down and see their own hands to create a deeper sense of presence and immersion in the gaming world.

The sense of presence and immersion in the gaming world are most likely satisfied with the existing technology. PS VR also aimed for an easy accessibility (McWhertor, 2014). Unlike most other VR devices where users have to go through complicated installation process and deal with numerous wire connections, PS VR is designed for easy access to the virtual gaming world by simply plugging the device into the console. Additionally, knowing the fact that there is a gamer-base out in the market holding onto the PlayStation console, developers and publishers are more willing to develop games that are compatible with the platform. Currently, there are over 200 VR games available on the PS VR. Games that are available includes *ASTRO BOT Rescue Mission*, *Creed: Rise to Glory* and *Angry Birds VR: Isle of Pigs*, and many more under development (PlayStation, 2019).

PS VR in the Future

Most companies in the VR industry are currently focusing on the development of cloud-based streaming services. It is clear that improvements of VR gaming experience could be expected on the upcoming PlayStation 5 or PS VR 2. Although PS4 with its PS VR technology presented a whole new immersive gaming experience to the industry, there are still several limitations that cannot yet be reached.

The limitations are the following. In the past, the wires of the headset made the gaming experience not as convenient because it was possible for gamers to lose all gaming records if the wires were accidentally disconnected. Furthermore, the headset having a relatively short distance between the eyes and the screens, was not a friendly device for users wearing prescription glasses. Since the attraction of VR is about immersion and comfortability, the future headset

prototypes would not only be expected to update and improve their technology specifications but also to overcome limitations from encountered through previous prototypes.

Sony Interactive Entertainment filed a patent on January 20th, 2017, and published it on January 31st, 2019. The patent includes an eye-gaze tracking technology and prescription glasses with eye-gaze tracking sensors (United States Patent and Trademark, 2019). The patent reveals the possibility for Sony to implement its eye-gaze tracking technology into its upcoming headsets. The eye-gaze tracking technology tracks the focus of the eyes and reduces the image resolution in your peripheral vision with foveated technology. This technology is significant to head-mounted devices (HMD) because it could save up more energy and power to support a clearer image within the eye focus. The particular prescription glasses are designed for users of a new headset device (Jr., 2019). The glasses would send signals to the sensors of the HMD to disable the eye gaze detection function (IGN, 2019). However, further applications on the prescription glasses are still unclear. Lastly, Sony's principal programmer, Simon Pilgrim, hinted their development on cross platform math for PlayStation 3 and 4 platforms, indirectly suggesting the possibility of backward compatibility (IGN, 2019).

Comparing to other high-end VR devices, it is clear that the PS VR occupies a significant role within the gaming industry. PS VR provides a more affordable gaming device that the majority of gamers are more likely to discover a qualitative and immersive experience on.

-M.H., Spring 2019

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PopCap Games

Overview

Founded in 2000 in Seattle, Washington, PopCap Games became one of the most popular casual game studios in the 2010s. PopCap's three founders, John Vechey, Brian Fiete, and Jason Kapalka, wanted to fill in the gap within the industry by developing games that would be for any player of any age; the company wanted to place its games between the Nintendo games that were available for kids and the hardcore, violent games that were found on personal computers (PCs) (Hanson 2021). This led to the creation of bright, casual, and easy-to-play games for people of all ages like *Bejeweled*, *Plants vs. Zombies*, and *Peggle* (Electronic Arts 2022). The company started off by developing web games and quickly gained popularity. The company was reportedly making over $100 million in revenue in 2010, and had around 475 employees globally along with over 1.5 billion downloads (Business Wire 2011 and US SEC 2011). In 2011, PopCap was acquired by video game publisher Electronic Arts, allowing the company to expand its global network and continue to release spinoffs of its most successful Intellectual properties (IPs) before slowly losing their popularity in the 2020s (Chiang 2011).

Establishment

PopCap Games was founded by John Vechey (General Manager), Brian Fiete (Chief Technical Officer), and Jason Kapalka (Chief Creative Officer). Vechey and Fiete first met at Purdue University, where they worked together to develop one of the first downloadable multiplayer games called *Attack, Retrieve, Capture,* or *ARC* for short (Walker 2020). Their 2D spaceship capture-the-flag game, released in 1995, caught the attention of thousands of players as well as Kapalka, who was working on sourcing, commissioning, and publishing online games for Total Entertainment Network at the time (Hanson 2021). Kapalka reached out to Vechey and Fiete to offer help in properly developing and publishing the game on an established platform, and within a few years, they decided to start a game company together, called Sexy Action Cool, which was later changed to PopCap to embody the fun and excitement that they wanted to bring to the game industry (Hanson 2021).

Published Games

Since its establishment, PopCap has made over 50 "fun video games for anyone to pick up and play" that are accessible on 25 different platforms and devices (Electronic Arts 2022). Throughout the years, PopCap has focused on the casual gamer demographic by developing captivating games in various genres, such as match-three, puzzle, and tower defense. PopCap popularized the match-three game category with its first release, *Bejeweled*, in 2000. *Bejeweled* is also PopCap's longest-lasting IP, spanning over 16 years, as there have been 5 sequels to the original game with the latest being *Bejeweled Stars* (Electronic Arts 2022). In the puzzle genre, PopCap's most famous game is *Peggle* which was originally released in 2007. *Peggle* became one of the company's most addictive games with over 60 million downloads (GameIndustry.Biz 2010). In 2009, PopCap released its most iconic game, *Plants vs. Zombies*, which was the company's first smash hit entering into the tower defense genre. *Plants vs. Zombies* became the company's most lucrative game as it was named a "Top-Selling Paid iPhone/iPod Touch Games for 2010" as well as "a top 10 top-selling and grossing iPad game" (Chiang 2011). Since the

game's release, the company has continued to specialize in the *Plants vs. Zombies* IP, expanding from its tower defense origins to the fast paced third-person shooter genre.

Methods of Monetization

Throughout the years, PopCap has attempted various forms of monetization. The three founders first offered Microsoft the chance to purchase *Bejeweled* for $50,000, but the company decided to rent the game for $1,500 per month to put on their website instead (Edwards 2013). However, the PopCap founders realized that they were not making enough money from the rental business model to continue innovating and developing games, so they made a switch to a "try-before-you-buy" model. PopCap decided to publish a free-to-play version of *Bejeweled* available to the public online, in which they have a limited number of free games (Hanson 2021). After players have finished the free games available to them, they have the option to purchase the "deluxe" version for $20 via credit card payment (Walker 2020). Although this revenue model was unheard of at the time, PopCap made it work and was able to profit off of *Bejeweled* and continue to bootstrap the company until 2009 (Edwards 2013). For *Peggle* and *Plants vs. Zombies*, the company also had free-to-play versions, sold the full version of the games, and offered microtransactions within the games, for upgrades and extra lives, as the revenue model (Electronic Arts 2011). Meanwhile, their social games, such as ones on Facebook, relied on native advertisements for revenue (Hanson 2021).

Although PopCap initially focused on online desktop games, which made up 85% of its revenue in 2000, the company was able to shift its focus to different platforms like mobile, which composed 30% of its revenue by 2010 and the percentage has been increasing since (Chiang 2011). As the company grew, PopCap was able to offer its games on various platforms, like mobile app stores, Steam, and MSN Games, and in retailers, like GameStop, Walmart, and Target (Chiang 2011). By expanding their distribution channels, they were able to capture more attention and revenue overall (Chiang 2011).

Electronic Arts' (EA) Acquisition

In 2011, EA acquired PopCap Games for "$650 million plus $100 million stock and a multi-year earn-out," which can total up to $1.3 billion (Rao 2011). With "EA's global studio and publishing network," PopCap was able to "rapidly expand their business to more digital devices, more countries, and more channels" (Rao 2011). As a subsidiary of Electronic Arts, PopCap expanded globally, with offices in Vancouver, Shanghai, and Hyderabad (Electronic Arts 2022). PopCap has continued to slowly release spinoffs of their most popular IPs, with the latest game being *Plants vs. Zombies: Battle for Neighborville* in 2019 (Electronic Arts 2022). However, the company started shifting toward a freemium model by focusing more on microtransactions since the acquisition as the employees needed to increase revenue to get the maximum amount of payout.

PopCap's Decline

In the 2020s, PopCap's popularity decreased dramatically due to the lack of captivating new releases. The company has fewer players overall, a smaller employee count of 127 people, and a decrease in annual revenue to $30 million in 2022 from their peak of $100 million a year before the acquisition (RocketReach 2022). To further show the modern-day decline of PopCap, the

subsidiary was not included in Electronic Arts' 10-K report as it has contributed less than 5% to 10% of EA's total revenue (Electronic Arts 2022). This is due to the fact that PopCap has not been innovating at the same pace or style, but instead, they are capitalizing off of previously made games. Although *Bejeweled* and *Plants vs. Zombies* have proved to be timeless franchises, players still want newness and excitement so that they would keep them coming back.

-N.S., Fall 2022

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Queer Indie Games

Overview

The queer indie game scene emerged out of the combined contexts of the rising independent games market and LGBTQ+ history. 2012 is often recognized as the beginning of the queer gaming movement, marked by the release of games such as Anna Anthropy's *Dys4ia* and merritt k's *LIM*. While queer indie games generally incorporate queer representation and are created by queer game developers, the genre is universally defined by themes of subversion and disruption: "These are games that disrupt the status quo, enact resistance, and use play to explore new ways of inhabiting difference," (Ruberg 2020).

History

LGBTQ+ characters and themes existed rarely in games for 4 decades after the first commercial video games were released in the early 1970s. Since the 2010s, more openly queer characters have appeared in AAA games such as Blizzard Entertainment's *Overwatch*. However, the queer game movement exists mostly within the context of the independent game movement. Free, open-source game development tools such as Unity and Twine made game creation accessible to independent queer creators who do not have the resources to make high-profile games. The release of Steam Greenlight in 2012, where developers could put their games up for a user vote to be published on the Steam marketplace, gave indie games space in a market with low saturation at the time and removed publishing and retail costs. The movement has continued to expand through the 2020s, with some titles like Witch Beam's *Unpacking* now gaining major popularity with gaming streamers on Twitch.

In a study of queerness in games throughout history, Adrienne Shaw and Elizaveta Friesem discover that a broader definition of queer representation in games might reveal a richer history of queerness in gaming, which could inform the future of queer games and queer game studies: "Research on new games with LGBTQ content must be better contextualized within the history of this content in digital games, as scholars of other media have done…examining what has been done offers examples for how queerness can be integrated into all aspects of games," (Shaw and Friesem 2016). The independent gaming movement is marked by the increased diversity of voices represented in games and the diversity of approaches to what video games should be. In *Rise of the Video Game Zinesters*, Anna Anthropy explains: "What I want from video games is for creation to be open to everyone, not just to publishers and programmers. I want games to be personal and meaningful, not just pulp for an established audience. I want game creation to be decentralized. I want open access to the creative act for everyone." (Anthropy 2012).

Tools

Open-source tools have been incredibly important to the ability of independent developers to create queer games. Twine is a free, open-source platform used to create interactive stories that can be published directly to HTML. Twine does not require experience with computer programming and it was not originally intended to be a game-making tool. It is known for its ability to "facilitate communication between people who actually have similar experiences" and has become associated with 'empathy games,' or games with a "capacity to put players in the mind of a game's creator and have them experience something personal," (Sarkar 2015). Some notable queer games made using Twine that incorporate themes of subversion and reconstruction

of standards are *With Those We Love Alive*, where the player cannot technically 'fail' the game, and *Queers in Love at the End of the World*.

Unity is another open-source game development tool that allows developers to publish their games on multiple platforms and supports cross-platform play. Unity is free for developers to use, "on the condition that they haven't earned or received more than $100,000 in revenue or funding derived directly from the use of Unity in the last 2 months," (Dealessandri 2020). It is well known for its popularity with indie and mobile games, although it struggles to support large, high-production level games. Despite these limits, Unity has become an important tool for queer independent game developers because of its ease of use and accessibility to those with fewer resources.

Distribution Networks

Digital distribution networks are a key factor in the queer games movement because of the benefits they provided to the independent gaming scene at large. Steam, Valve's video game distribution service, became the first major distribution network for indie games when its Greenlight project was introduced in 2012. Steam Greenlight allowed developers to submit their games for free to a system where users would vote to have them published on the Steam storefront. Greenlight, notably, allowed indie developers to develop an audience before their games were officially released. In 2017, Valve announced it was replacing Greenlight with Steam Direct. Steam Direct removes user voting and implements a $100 fee for developers, which is returned if the title earns more than $1000 in sales. Rather than users testing games and submitting feedback, Valve employees "review each submission, installing the software to make sure that it is what the developer says and that it contains no malware," (Sarkar 2017).

Itch.io is an alternative digital distribution platform that is both much smaller and designed with different features and goals in mind. While it costs money to publish a game on Steam, Itch.io "lets developers decide how [the money they make on a game] gets divided between the platform and content creator. If a developer doesn't want to give money back to Itch, they don't have to," (Hernandez 2018). This model is more popular with experimental games, projects created with little time or money, and developers that might not be able to risk losing the Steam publishing fee. During the court proceedings between Apple and Epic Games in 2021, Apple's attorney described Itch.io as "a storefront that's flooded with 'offensive and sexualized' content of the sort that would typically be barred from the iOS App Store," (Rosenberg 2021). Adam Rosenberg argues that sexualized content exists on all platforms and that Apple's negative portrayal of Itch.io dismisses the creativity it fosters and the communities that have gathered on the site, including a large number of LGBTQ+ creators and developers.

Censorship

Games about queer themes and characters have often faced censorship on live-streaming platforms and in the publishing process. Robert Yang, a gay indie game developer "who has released a number of short, often funny games about gay sex and culture," has had multiple games banned from being broadcast by streamers on Twitch (Webber 2017). Yang responded by creating *The Tearoom*, which simulates the experience of "cruising public toilets for anonymous sex" in the 1960s while being surveilled and prosecuted by police (Webber 2017). *The Tearoom* replaces phallic objects with guns both to avoid censorship of sexual content and as a commentary about guns in video games that are not censored by the same platforms.

The censorship of queer games and developers happens more subtly throughout the games industry as well. Elizabeth Sampat discusses being queer in mainstream game studios, explaining that while she has always been openly queer in the companies she has worked for and has faced little blatant discrimination from her colleagues, “there are still issues—like at a place [she] worked where one of the owners of the company used the t-word in a joke in front of a trans woman programmer,” (Ruberg 2020). Sampat also explains how crunch at mainstream game studios makes confronting coworkers difficult: “there’s never a moment where you can sit down with someone and say, ‘Hey, that wasn’t cool.’ You’re always going to need that relationship… You have to be likable,” (Ruberg 2020). Producing games independently means queer creators can avoid comments like these in their work environment, but no game or developer is protected from censorship by platforms such as Steam and Twitch or algorithms designed to shut down ‘offensive’ content.

-S.J., Spring 2022

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Real-Time Strategy (Genre)

Overview

Real-Time Strategy (RTS) is a game genre of "simplified military simulation" (Robertson and Watson 2014). In RTS games, players "harvest, build, and destroy"—a player indirectly controls many units and structures by issuing orders from an overhead perspective in order to gather resources, build an infrastructure and an army, and destroy the opposing player's forces (Geryk 2011; Robertson and Watson 2014). The game happens in real-time; players do not take turns. Instead, players "may perform as many actions as they are physically able to make, while the game simulation runs at a constant frame rate (24 frames per second in StarCraft) to approximate a continuous flow of time" (Robertson and Watson 2014).

Origin and Development

The origin of RTS games can be traced back to the advent of games such as *Utopia* (1981), *Cytron Master* (1982), *The Ancient Art of War* (1984), *Nether Earth* (1987), and *Herzog Zwei* (1989) (Adams 2006; Geryk 2011; Moss 2017). *Herzog Zwei* is considered the proto-RTS game that gave rise to the genre afterward. Developed by Technosoft and published by Sega for Sega Genesis, the game revolves around letting the player pilot a flying to win the battle by destroying the enemy's home base with options to build troops and vehicles and manage fuel and monetary concerns. Due to the lack of marketing and its relatively early release on the platform, the game's market performance was lukewarm.

The genre was not considered fully formed until *Dune II*, developed by Westwood Studios, was published in 1992 by Virgin Interactive on Mega Genesis (Adams 2006; Geryk 2011; Moss 2017). The game includes mechanisms fundamental to RTS: players need to harvest by collectors, build bases, produce units, fight battles, and destroy the enemy (Moss 2017). The game was a commercial success, with global sales of over 250,000 units by November 1996 ("Software Retailers on Full Alert as Westwood Studios' Red Alert Ships" 1996).

The genre also appeared on PC as RTS commercial hits such as *Command & Conquer* (1995), *Starcraft* (1998), and *Warcraft III* (2002) appeared. Starcraft became the best-selling PC game in 1998, with 1.5 million copies sold worldwide (IGN, 2012). In the next decade, *StarCraft* sold over 9.5 million copies across the globe, with 4.5 million of these being sold in *South Korea* (Olsen 2007). StarCraft remained one of the most popular online games in the world ten years after its release ("RETROSPECTIVE: Ten Years of StarCraft" 2008).

RTS games also entered the mobile game arena in more recent years. Popular mobile RTS games include *Clash Royale*, published by Supercell in 2016. The game is known for its accessible but deep gameplay, integrated social aspect, and common monetization techniques with innovative new takes, such as implementing a wait timer for chest opening (Zhang 2020). The game made $1 billion in revenue in less than a year on the market (Takahashi 2017).

Monetization Model

Early RTS games released on console and PC usually follow a one-time purchase model, where users pay a price for one time to access all the content. PC/Console RTS games like *Age of Empire II* were released two times with remastered graphics and extended content after its initial release in 1997, enabling loyal players to purchase different editions of the same game.

For mobile RTS games, monetization centers around in-game microtransactions while the games are free-to-play. Common items for sale in such games include time-skipping privileges for building upgrades, special characters to enhance the army's combat power, and lotteries for chests containing different tools useful for the gameplay. Maintaining the balance between monetization and player retention in such games becomes a major challenge for game developers as overpowering pay-to-win players can cause the game to lose players who do not spend much or at all, while not making pay-to-win players very powerful can discourage their incentive to pay (Zhang 2020).

RTS Games in eSports

RTS games such as *Warcraft III* and *Starcraft* frequently appear in international eSports tournaments, including the World Cyber Game, Electronic Sports World Cup, and World e-Sports Game.

After its release in 1998, *StarCraft* rapidly grew in popularity in South Korea, establishing a booming pro-gaming scene (Kim 2005). With investment and organizational help from Blizzard itself, professional tournaments outgrew the cramped PC bangs (Internet Cafes in Korea). Two TV channels in Korea also started to broadcast the tournaments. In 2004, the final of the StarCraft Pro League attracted 100,000 fans to Gwangalli Beach in the southern beach city of Busan (Mozur 2014).

Warcraft III gained tremendous popularity in China after its release in 2002 when the government banned the importation of consoles, and the internet became popular. The professional gaming scene started to form as more and more young people started to play the game in internet cafes. In 2005, a Chinese gamer named Liu Xiaofeng won the Warcraft III competition in the World Cyber Game with a 40,000 US dollar prize (Custer 2016).

Current Drying Up of RTS Games on PC

Though RTS games have made their way into the mobile game market, new RTS games on PC stopped coming out after Starcraft II was concluded with two Campaign sequels in 2015. "The titans of the genre have all dried up" (Winkie 2021). Ensemble Studios, famous for creating the *Ages of Empire* series and being valued at an estimated $500 million in 2009, was disbanded in the same year (Irwin 2009). Gas Powered Game, the maker of the popular RTS title *Supreme Commander*, stopped its operation in 2018. Blizzard stopped publishing sequels of *Starcraft* in 2015.

The drying up of the genre on PC has a few reasons. First, most players are satisfied with offline story campaigns in the game and skirmishes with AI, not participating in online services in

which most of the microtransactions can happen. Second, even if more players participate in online battles, the cost of making products such as skins for different units in RTS would be high since one player usually controls twenty to fifty units in one battle. Compared to games making tremendous revenue from skin sales like *League of Legends* in which each player controls one unit, selling skins in RTS games appear less economic. This situation makes the genre have less potential for investors to make money, resulting in a decrease in investment to develop new titles in the genre (Winkie 2021).

-V. C., Fall 2023

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Riot Games

Riot Games Inc. is an American video game developer, publisher, esports organizers and a subsidiary Tencent. Founded in 2006 by Brandon Beck and Marc Merrill, Riot Games is known for its free-to-play game *League of Legends*. In 2020, Riot released three major games: *VALORANT*, a character-based tactical shooter for Windows PC, *Legends of Runeterra*, a strategy card game for PC and mobile, and *League of Legends: Wild Rift*, a mobile version of *League of Legends*. Over the years, Riot has expanded the *League of Legends* universe beyond games into music, comics, and recently the animated TV series "Arcane".

Founding and Early History

As recent graduates from the University of Southern California studying business, Beck and Merrill bonded over their love of games. At the time, the two had begun playing the *Warcraft III* mod: *Defense of the Ancients* or *DOTA* and saw promise in the gameplay and in how the game's content was being released and updated. *DOTA* proved to Beck and Merrill that "games as a service is something that can really work," and from then the concept for *League of Legends* was born (Crecente 2019).

In September 2006, Beck and Merrill founded Riot Games in Santa Monica and hired a group of interns and one of the original designers of *DOTA Allstars*, Steve "Guinsoo" Feak. From the beginning, Beck and Merrill were determined to make a free-to-play game that followed the games-as-a-service model, so when publishers wanted to buy the game and sell it as a single purchase game, they decided to find funding to publish their own game. In 2008, Riot released a pre-alpha of the game (now *League of Legends*) and cut a deal with Tencent in order to expand its reach to the Chinese market. On October 27, 2009, Riot released *League of Legends* to the public, attaining 100,000 concurrent players within the first two months (Kollar 2016).
In the following years, *League of Legends* would earn over an estimated $1.29 million dollars in revenue in 2009, increasing to $85 million in 2011 (Crecente 2019). In 2011, Tencent bought 97% of Riot Games for $400 million, later buying the remaining 3% in 2015. With Tencent, Riot could work in complete independence, relocating to a new headquarters in Los Angeles while shifting to a "cash-based incentive program" to reward its employees (Frank 2015). Riot was ranked #4 in the 25 Best Tech Companies to Work for in 2013 by Business Insider above both Google and Apple (Dickey 2013).

Sexism at Riot

On August 7, 2018, Kotaku released a story called "Inside the Culture Of Sexism At Riot Games" which reported on the toxic bro, frat, and gamer culture of Riot and several accounts of sexisim and unfair treatment of women in the company from both former and current Riot employees (D'Anastasio 2018). These accounts included incidents of preferential treatment of males in hiring practices and promotions, the over scrutinization of women in interviews, and

cases of sexual harrassment, highlighting a disconnect between Riot's core values and zero-tolerance policies and how they were actually upheld.

In November 2018, one former and one current employee filed a class action lawsuit against Riot for gender-based discrimination. In April 2019, Riot motioned to move these lawsuits into private arbitration, to which Riot employees responded, staging a walkout on May 6. Later that year, in December, Riot settled the lawsuit, paying $10 million to former and current female employees (Robertson 2019). However, the settlement was withdrawn after the Los Angeles Times published an article claiming that the women could be entitled to $400 million instead of $10 million, because according to the California Department of Fair Employment and Housing, the original settlement payout did not take into account the wage differential between men and women, and the plaintiff's lawyers did not do enough to determine a fair dollar amount for their clients (Dean 2020). According to Court Record Legal Database *UniCourt*, as of writing, the case of McCracken et al. v. Riot Games, Inc et al. is still pending.

Published Games

Since its conception, Riot has found success in reinventing popular genres to create its own free-to-play games that expand the *League of Legends* universe across different platforms. *League of Legends* defined what it meant to be a multiplayer online battle arena, a term Steve "Guinsoo" Feak used to describe the game's genre before the game's release (Perez 2009). Following *League of Legends'* ten year anniversary, Riot released three new games that broadens the *League* universe: *Teamfight Tactics*, *Legends of Runeterra*, and *League of Legends: Wild Rift*. *Teamfight Tactics* is Riot's auto chess game, introducing new champions and classes allowing for diverse gameplay on PC and later mobile. *Legends of Runeterra* is Riot's take on a strategy card game, creating a gameplay experience akin to a "conversations between players" rather than a "debate of dueling speeches" (Shea 2020). *Wild Rift* adapts *League of Legends* for mobile. Among its published games, *VALORANT* does not borrow from *League of Legends*. The game features completely new characters and merges the tactical shooter genre with hero-based shooters to create its own niche gameplay experience.

In 2019, Riot Games launched a new publishing label Riot Forge that would focus on partnering with other studios to build "completable" games that build on the *League* universe (Webster 2019). Under the label, it has already released two new games, *Ruined King* and *Hextech Mayhem*, with two more, *Song of Nunu* and *Conv/rgence*, on the way (Knoop 2021). These games are the first instances of Riot publishing games for consoles such as Xbox One, PS 4 and 5, and Nintendo and distributing games through Steam, GOG, and the Epic Games Store, and unlike other games they have released, Riot Forge games are single-purchase games.

Beyond Games

Riot has delved into contemporary music, using it as a marketing tool for its major eSports events and skins. Since 2014, Riot has written anthems for every *League of Legends* Worlds

Championship, and recently the *VALORANT* Championship Tour, collaborating with artists like Imagine Dragons, ZEDD, and PVRIS. Beyond eSports, Riot has created virtual artists and bands as a way to market in-game cosmetics, collaborating with artists around the world to bring these bands to life. Riot's first virtual band Pentakill was an unexpected hit, breaching the Billboard Top 40 and reaching #1on the iTunes metal charts (Lawson 2017). Sona was the next champion to receive this treatment, donning the DJ Sona skin.

However, Riot's most notable group, K/DA, took the music industry by storm. The all-girl kpop-inspired groups debuted with its song "Pop/Star" in 2018 and released its first album *All/Out* in 2020, gaining "almost three million monthly listeners on Spotify," winning "six awards," and topping the "World Digital sound charts three times" (Purslow and Cardy 2021). Following K/DA, Riot debuted True Damage, a hip hop group along with an exclusive skin in collaboration with Louis Vuitton for the champions Qiyana and Senna (Lee 2019).

Riot began its journey into comics in 2017, publishing a few one-shot *League of Legends* comics. Riot later partnered together with Marvel Entertainment to bring more *League of Legends* lore to life, releasing 3 comics series about Ashe, Lux, and Zed (McIntyre 2019). Riot's latest project, the animated TV series "Arcane" premiered on November 6, 2021 on Netflix, scoring 100% on Rotten Tomato and 9.3/10 on imdb, beating out *Stranger Things* as the number one most demanded series in the US (Haring 2021). After the release of the final act, on November 20, Riot announced that season 2 was already in production.

-L.Y., Fall 2021

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Riot Games, Valorant, Valorant Champions Tour

Overview

Valorant Champions Tour (VCT) is the official tournament series for Riot Games' character-based 5v5 first-person shooter game, *VALORANT*. Hosted and produced by Riot Games, VCT spans across four territories: Americas; Europe, the Middle East, and Africa (EMEA); Asia-Pacific (APAC); and China (VALORANT Esports 2025c). The main Tier-1 league features year-long regional and international events where teams accumulate qualifying points based on finishing placements. Teams with the top points in their region qualify for the annual world championship, Champions, with a $2.25 million USD prize pool. Riot generated $88.6 million USD from VCT-branded digital goods—weapon skins and bundles—in 2024 (Faria 2024), and their Twitch has an all-time peak viewership of 1.6 million viewers (Esports Charts 2025a). VCT is also composed of Challengers, a Tier-2 system that qualifies into the main league, and Game Changers, a tournament series that highlights women and marginalized genders.

Structure

VCT spans over a year with each event granting Circuit Points to teams based on placements. Partnered teams are invited to their region's Kickoff, the inaugural event. The top three teams from each Kickoff qualify into the first international Masters. Shortly after, Stage 1 begins in each region where the top three teams qualify for the second Masters event. Teams compete for more Circuit Points in Stage 2, the last chance to qualify for Champions. The top four teams in Circuit Points from each region play in Champions, competing to be the world's best *VALORANT* team.

Figure 1: The VCT schedule for the 2026 season from the *VALORANT* website (VALORANT Esports 2025a).

Challengers (VCL) teams, who qualified from the in-game mode Premier, compete to have a spot in Champions. The top two VCL teams from each Challengers tournament will compete in their region's Stage 2 playoffs, allowing them to directly qualify for Champions. Additionally, Game Changers (GC) tournaments occur throughout the competitive year with the Championship in November to wrap up the competitive season.

Franchising & Finances

For the 2023 competitive season, *VALORANT* introduced ten franchised teams in each of the three regions—the Americas, EMEA, and APAC. Prominent esports organizations partnered with Riot Games include FURIA Esports, Cloud9, Evil Geniuses for the Americas; Team Liquid, Fnatic, and Natus Vincere for EMEA; and T1, Team Secret, and Gen.G for APAC. China was later added as a region for the 2024 season (Mira 2023), featuring teams like Wolves Esports, Bilibili Gaming, and FunPlus Phoenix. There is no cost to be a franchised team, but they must "support their town teams financially… or risk losing their spot" (Geddes 2022). These teams are guaranteed a spot in their respective region's tournaments and receive subsidies from Riot. Stipends are estimated to range from $600,000 to $1.5 million USD based on region, performance, and the league's revenue (Hoogland 2022). VCT Team Capsules—an in-game player banner, gun buddy, and weapon skin—were introduced in 2024 with a 50% revenue share to partnered organizations (Yurk 2024). That year, a total of $78.4 million was shared with teams from digital goods, stipends, and prize pools (Faria 2024).

While franchising improves sustainability for partnered teams, there are community concerns regarding organizations that did not qualify for the program. VCL does not guarantee long-term sustainability, even if they qualify for Champions, as they risk relegation after one year and receive no stipends. Therefore, many organizations that did not get partnered have decided to end its *VALORANT* operations, like Luminosity Gaming and Acend—the first Champions winners.

Path to Champions

VALORANT's Path to Champions is a competitive pathway to play in VCT, beginning in Premier: an in-game tournament mode where teams compete in a weekly bracket with various divisions based on ranks. Teams gain points that contribute to their Premier Score, the benchmark to qualify for Playoffs. Those in the highest division, Contender, have a chance to qualify for Challengers—VCT's Tier-2 league. These top teams previously qualified for Ascension, a tournament with a prize pool of $100,000 and qualification for the main international league. They are guaranteed a spot for one competitive year, but can be relegated based on performance (VALORANT Esports 2025b). For the upcoming year of 2026, Riot Games is removing Ascension and allowing teams to qualify directly for the Stage 2 Playoffs to qualify for Champions to make VCT a "more open competition, reigniting the dream for rising teams and players worldwide" (VALORANT Esports 2025a).

The Tier-2 scene has supposedly experienced "widespread issues of matchfixing and bribery" as alleged by Shopify Rebellions' manager Sean "sgares" Gares in 2025 (Esguerra 2025). While it was determined "there was insufficient evidence to substantiate any claims" (Riot Games 2025), it highlights the broader issue of sustainability in the Tier-2 scene. Low financial support, as

unpartnered organizations leave due to franchising, make players desperate to earn a livable wage. Additionally, the Tier-2 league has poor management, showcased as VCL in Europe in 2024 "fail[ed] to deliver prize payouts" (Mkaelovich 2024). The quality of Tier-2 has implications for the main league. As former Sentinels' player Tyson "TenZ" Ngo stated, "Tier 2 is a crucial pillar of support for Tier 1… When that pillar starts to crumble, there's a very real risk the entire structure could collapse" (Ngo 2025).

Game Changers

Compared to male-dominated competitive first-person shooter games, *VALORANT* has a diverse player base with around 40% identifying as women (Takahashi 2021). In 2021, Riot established VCT Game Changers—a tournament series highlighting women and marginalized genders in the competitive space. It mirrors the main bracket's structure with regional tournaments that qualify into the main event, GC Championship, with a prize pool of $500,000. As tournaments for women and marginalized genders only account for 3% of the entire esports ecosystem (Esports Charts 2025b), the founding goal was to "build towards a [VCT] that is more inclusive and representative of our community" (VALORANT 2021).

VALORANT's strides to representation are the most developed compared to other esports titles with women's share being 23.9% of tournaments, 13.8% of the prize pools, and 5.6% of the hours watched (Esports Charts 2025b). While the growth of women playing competitively is undeniable, the low viewership and various controversies have the community questioning Riot Games' management. There was a cheating scandal in 2023 that was handled poorly in the NA Championship qualifiers (Riot Games 2024), controversial bans for two players defending in-game tea-bagging when it was compared with sexual assault (Riot Games 2022), and a patch released a month before the 2025 Championship that completely altered the game's meta and left GC teams scrambling (Sayal 2025). Concurrently, the scene struggles with sustainability with little investors and players cycling through as many play with little-to-no salaries (FlyQuest 2025).

Co-streaming

A large part of VCT's ecosystem is co-streaming. Streamers who wish to host watch parties must sign up on Riot's website in order to participate and follow official guidelines. Of *VALORANT* Champions 2025's 47.58 million hours watched, 58.4% are from co-streamers (Dempsey 2025). One of the most watched co-streamers is former *Counter-Strike* Major winner Tarik "tarik" Celik. For the entirety of VCT Masters Tokyo in 2023, his "average viewer numbers were 1.7 times higher than the official stream" (Stubbs 2023). Riot also invites streamers to their in-person tournaments where they can stream the event straight from the venue to their own channels. For the GC Championship 2026, they invited streamers from North America, Japan, and Korea and gave each a unique Twitch drop, a limited in-game player title, that viewers can receive for thirty minutes of watchtime.

-I.M., Fall 2025

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Roblox Corporation

Overview

Roblox Corporation is an American video game developer and publisher founded in 2004 by David Baszucki and Erik Cassel. The company is located in San Mateo, CA and is known for publishing *Roblox* in 2006. The company has around 1,600 employees and was valued at around $19.5 billion as of June 2022. *Roblox* is a free-to-play multiplayer platform and storefront available on various devices, including smartphones, PCs, or specific consoles like the Xbox One. The games on *Roblox* are not formally created by Roblox Corporation but instead by users on the platform. Although the games are free-to-play, the platform offers in-game purchases through their digital currency, Robux. In March of 2021, Roblox Corporation went public on the stock market and was valued at $45 billion.

Founding and Early History

Before founding Roblox Corporation, David Baszucki and Erik Cassel were engineers and entrepreneurs who worked at Knowledge Revolution, a physics and mechanical simulation developer for education. From the start, *Roblox* was meant to be a platform that utilized the imagination. Baszucki noticed that kids would get excited when creating things using Knowledge Revolution's physics software, which was an inspiration in developing this idea. They started writing the first version of *Roblox* in 2004 and created a version available for beta testing in 2005. The application was initially called *DynaBlocks* but was then renamed *Roblox* after coming out of testing (Sidhwani 2021).

Baszucki and Cassel believed there was an opportunity to create an immersive, 3D multiplayer platform where people could create and share their imagination and experiences (Adams 2016). Due to Baszucki's background in educational software, he envisioned *Roblox* as a place where children could learn to code, explore virtual worlds, play, and socialize, especially if their real-life experience was unfulfilling (Browning 2021). *Roblox* was released on PCs first, then on mobile devices in 2012, the Xbox One in 2015, and the Oculus Rift in 2016.

Roblox's Business History

For years, *Roblox* has steadily gained traction with younger audiences. However, the COVID-19 pandemic helped boost its popularity because people were spending much of their time at home. The *Roblox* community has evolved from individual part-time developers to many full-time studios focusing exclusively on developing games on the platform (Francis 2021). Over the years, Roblox raised $871 million in funding, with its biggest investors being Altos Ventures, Index Ventures, and Meritech Capital Partners (Browning 2021). In 2020, the company raised $335 million from investors, including Meritech Capital Partners, Tencent, and Andreessen Horowitz (Browning 2020).

Prior to going public in March of 2021, Roblox Corporation was valued at $4 billion. They made $251.9 million in revenue and $496.4 million in bookings, which is the amount of virtual currency purchased by users in a given period. By the end of the third quarter of 2021, Roblox's

revenue increased by 102% to $509.3 million and increased their bookings by 28% to $637.8 million (Francis 2021).

Roblox's Monetization Scheme

The company operates under a freemium model where the games are free-to-play, but users have to pay to unlock more advanced features and customizations. Roblox derives most of its revenue by selling its in-game digital currency, Robux, which can be used to make in-app purchases. They also make money through its subscription service Roblox Premium, advertising deals, partnerships, and by taking a 30% cut from the sale of each virtual item (Joseph 2021). The company splits its Robux profits with the independent developers that create the games. In recent years, Roblox Corporation has expanded its operations and product offerings by launching new products and services like Roblox Marketplace, which allows users to purchase virtual items and content for their games.

Early on, Roblox entered into partnerships with major brands and companies that would help grow its advertising base even further. The company would generate money by advertising a partner's products and services on the platform or by playing video ads before a user entered a game. *Roblox* has become a popular platform in the metaverse, which is a shared online space where people can live and interact with each other virtually. Roblox has held business meetings on the platform and has promoted virtual concerts within its universe (Browning 2021). Many brands, including Gucci, Chipotle, and Nike, are entering this virtual realm to reach new audiences and remain relevant.

The *Roblox* platform includes messages that indicate the ease of creating games and getting paid. Since the platform relies on User-Generated Content (UGC), those who create popular games on *Roblox* have the potential to earn six-figure salaries (Browning 2021). However, creating a game that shows up on the list of top games can be difficult because its discoverability platform is based on popularity. For a game to be highlighted, creators can wait to see if it gains popularity organically, or they can pay Roblox to feature it on the front page. Developers can market their game by finding YouTubers and streamers, paying for ads on Facebook, or by using *Roblox's* ad system, where users can bid for ads paid for in Robux (Rousseau 2021).

Roblox Corp. Criticism

Many users on *Roblox* are under the age of 16, and the company has faced criticism for exploiting its young game developers by paying them much less than other traditional gaming platforms, such as Steam, Epic, or Apple. In general, developers on *Roblox* earn 24.5% of their revenue, while developers on Steam earn 70%, and developers on the Epic Game Store earn 88% of their earnings (Rousseau 2021). The company also makes it difficult for developers to cash out the money they earned from creating games. Creators are first paid by receiving a portion of Robux that comes from the sale, which they can use to purchase other *Roblox* experiences, such as in-game assets and cosmetics. Once a developer enters the Robux economy, their money is all spent inside the game until they can withdraw it (Francis 2021). However, to withdraw the funds, creators must have around $1,000 worth of Robux, which creates more incentive for young developers to keep working in Robux. The conversion rate Roblox gives creators upon cashing out often means that the creator only receives about $350 (Rousseau 2021).

Furthermore, Roblox has been criticized for extremist content even though the company reviews game content, has extensive parental controls, and filters profanity and personally identifiable information out of chats. The platform has been accused of becoming a playground for virtual fascists due to there being digital worlds that encourage white supremacy, neo-Nazis, slavery, and anti-Semitism. Before Roblox intervened, there was a group called the Senate and People of Rome, a group of far-right extremists who created a fascist state, complete with shock troops, -slavery, and degeneracy laws, and at its height, had over 20,000 players (D'Anastasio 2021). *Roblox* has had Nazi role-plays and recreations of mosque shootings in the past, and although the games are now policed more heavily than before the company went public, users continue to report issues. Roblox has been criticized because this type of content is dangerous to their young audience, who may be vulnerable to harmful ideologies.

In addition, the company recently had a lawsuit filed against them for enabling a California girl's sexual and financial exploitation by adult men. According to the lawsuit, the thirteen-year-old minor was encouraged to drink, abuse prescription drugs, and send sexually explicit photos of herself after signing up for Discord, Snapchat, and Instagram to communicate with them (Pierson 2022). One man allegedly persuaded her to send him money as well. The lawsuit adds that the minor suffered severe mental health problems leading to suicide attempts and hospitalization due to her experience.

-S.S., Fall 2022

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Rockstar Games

Rockstar Games, Inc. is a video game publisher founded in 1998 (Rockstar Games, n.d.). It is a subsidiary of Take-Two Interactive Software Inc. based in New York City. Take-Two Interactive is also the parent company of notable labels 2K and Private Division. Rockstar Games is known for publishing numerous critically acclaimed franchises, such as *Grand Theft Auto*, *Red Dead Redemption*, *Max Payne*, *Bully,* and *Midnight Club*. It has become an industry standard label, and a large source of revenue for Take-Two Interactive (Take-Two Interactive Inc, n.d). Rockstar Games is also known for multiple controversies throughout its tenure, most recently regarding labor practices.

Establishment

Take-Two Interactive acquired BMG Interactive, a defunct subsidiary of BMG Entertainment in exchange for 1.85 million shares, in May 1998. The label was re-named Rockstar Games soon after. Former BMG developers and brothers Dan and Sam Houser, Jamie King, and Terry Donovan officially established the label in December 1998. Dan and Sam Houser have served as the label's presidents since 1998. All former employees of BMG, they relocated from London to New York City, and continued to develop their projects. Dan Houser is considered the major creative force at Rockstar, with head writing credits on the label's major titles. (Design Museum, 2008)

Notable Subsidiaries

In September 1999, Rockstar Games bought DMA Designs, a Scotland-based development house for $11,000,000 (IGN 2002). DMA Designs published the first *Grand Theft Auto* game the previous year (Kennedy, 2000). On March 27th 2002, DMA Design was renamed Rockstar Studios, and on May 30th, renamed again as Rockstar North (NowGamer, 2014). Leslie Benzies was named head of Rockstar North, and remained until 2016. Benzies is noted for his role as producer of the *GTA* series (Klepek, 2016). On November 20th 2002, Take-Two Interactive acquired Angel Studios for a combined value of $34.7 million. It was renamed Rockstar San Diego. Rockstar San Diego is responsible for the development of RAGE. The Rockstar Advanced Game Engine (RAGE) is the trademarked in-house engine (Bloomberg News, 2012).

Grand Theft Auto

Initially developed by DMA Designs, *GTA* is Rockstar Game's most commercially successful product. The player takes on the role of a criminal, who must survive a dangerous rendition of a major US city. Depending on the title, there is a variety of tasks and activities the city presents the player. The open-world format gives players a sense of true control, which makes for an immersive, rewarding, and time-consuming experience. *GTA III*, developed by Rockstar North, was released on October 22nd 2001, for Playstation. It is the first installment to have a 3D, third-person format, Rockstar's trademark aesthetic. *GTA III* set the standard for Rockstar Games, both in product quality, and commercial performance (IGN, 2001). *GTA III* was the highest-selling console game of 2001, with almost 2 million units sold (NPD, 2001). As of 2008, 14.5 million units have been sold. *GTA: Vice City*, released the following year, capitalized on momentum and surpassed the previous installment. It was the highest-selling video game of 2002; *GTA III* as the 2nd-highest (NPD, 2003). *Vice City* has sold 20 million units worldwide.

GTA: San Andreas was released on October 26th, 2004. It surpassed its predecessors, selling 27.5 million units total. It is the best-selling PS2 game of all time. Rockstar and Dan Houser elevated their expectations for 7th-generation consoles. Improved processing power increased precision in game mechanics and designs, and improved physics allowed for tighter gameplay flow (Boyer, 2007). *GTA IV* was released on April 29th, 2008 to widespread acclaim, selling 3.6 million units, earning $310 million within 24 hours. At the time, an all-time record. Over 25 million units total have been sold (Androvich, 2008). Production on *GTA V* began soon after *GTA IV*. The game is estimated to have cost $265 million to develop. It was released on September 17th, 2013. *GTA V* earned 1 billion within 3 days, selling 11.2 million units. It surpassed *GTA IV*'s lifetime sales within six weeks. Lifetime sales reached approximately $6 billion, with 100 million units sold (Nayak, 2013). Pivotal to the success of *GTA V* is "GTA Online," a multiplayer mode where players can create their own character, and explore the game with other players in the server. Free substantial updates keep online players entertained, and provide the player with a totally separate experience than the single-player. Microtransactions within *GTA Online* provide an additional source of revenue for Rockstar. (Matulef, 2013)

Rockstar Today

Rockstar Games is among the most lucrative AAA publishers, exceeding commercial expectations with every release. *Red Dead Redemption 2* is the most recent Rockstar Games product. Developed by Rockstar San Diego, the Western themed game is the highly-anticipated follow up to *Red Dead Redemption*, released on May 16th, 2010. Another massive commercial success, *Red Dead Redemption* sold 15 million units as of 2017. Development and marketing began in 2016. (Crecente, 2016). It experienced several delays, due to the scale of development and hyper realistic detail. Examples include: 2,000+ pages of dialogue, 2,200 days of filming with 1,200 different actors, and occasional 100-hour work weeks during crunchtime. Criticism regarding Rockstar's labor practices arose following *New York* coverage of *Red Dead Redemption 2*, in the article "How the West Was Digitized" (Goldberg, 2018). The statements highlight a "culture of crunch" at Rockstar Games, that has formed within the publisher. Employees experience mandatory overtime, with an emphasis on constant quality production. Rockstar promotes long work-hours as a measure of a proficient, valuable employee. Employees are salaried, meaning over-time is not paid; they hope sales bonuses cover their hours (Schreier, 2018). However, these high expectations lead to negative personal consequences for employees. Instances of employees bringing sleeping bags, isolating from family and friends, using drugs and alcohol, and suffering anxiety and depression have been claimed by former developers throughout Rockstar's tenure (Phillips, 2018). Despite negative press, *Red Dead Redemption 2* was officially released on October 26th, 2018. Heavily anticipated, *Red Dead Redemption 2* sold 17 million units opening-weekend, surpassing its predecessor's lifetime sales. Sales totaled $725 million, the largest entertainment release of 2018. Take-Two also reported itf was the most pre-ordered game in PSN history. A beta online mode was made available to all players, and is currently undergoing patches and improvements. DLC and updates are expected fin the following months. Rockstar Games continues to remain at the top, with little-to-no indication of faltering.

-D.S., Fall, 2018

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SEGA

Overview

SEGA is a Japanese video game and entertainment company known for its iconic franchises such as *Sonic The Hedgehog* and *Virtua Fighter*. With its recognizable brands and long-standing stature in the industry, SEGA is regarded as “one of the most important companies in video game history” (Millsap 2020). SEGA was also once known as an arcade and console juggernaut, with a particular commercial emphasis in North America. However, after commercial failures in the 90s, SEGA has been exclusively a third-party developer and publisher since 2001. As of the 2020s, SEGA mainly oversees new installments into its pre-existing franchises instead of developing new intellectual properties, with all revenues in 2022 reaching $2.64 billion (SegaSammy 2022). SEGA’s main headquarters is situated in Tokyo, with American and European branches in California and London, with over 3,000 employees.

Founding and History

SEGA, short for Service Games, has its origins tracing back to the 1940s in Hawaii when American businessman Martin Bromley formed Standard Games, SEGA’s predecessor, to provide coin-operated amusement machines for U.S. military bases. When the United States outlawed slot machines in 1952, Bromley and his partner Richard Stewart established SEGA in Tokyo, and pivoted their company’s focus to providing slot machines for U.S. military reservations in Japan (Fahs 2012). SEGA eventually transitioned from making slot machines for the military to arcade manufacturing for the public, releasing the electro-mechanical submarine simulator *Periscope* in the late 1960s.

SEGA went through two ownership changes over the next 20 years. After Gulf Western bought out the company in 1969, SEGA became an American company and was rebranded into SEGA Enterprises, establishing Los Angeles offices. The company soon became a video game manufacturer, releasing *Pong-Tron* in 1973. In 1984, Japanese business conglomerate CSK Corp acquired SEGA, making SEGA a Japanese company once again.

From the early 80s to the early 2000s, SEGA manufactured gaming consoles. In 1990, SEGA oversaw its most successful console, the SEGA Genesis, as well as the introduction of the company's flagship character, Sonic The Hedgehog: the two propelled SEGA’s sales to rival that of Nintendo's SNES and Mario series. SEGA console manufacturing days eventually fizzled out in the early 2000s following the high-profile failures of the Saturn and Dreamcast consoles, as the company reported its first-ever annual income loss in 1998 at -¥43.3 billion (SEGA 1998). In 2001, declining revenues and massive accrued debts prompted SEGA to cease console production and transition to third-party development. In 2004, pachislot retailer Sammy Corporation acquired the struggling SEGA for $1.8 billion and established the holding company

SegaSammy Holdings, with SEGA serving as its entertainment content business subsidiary (Dvorak 2004).

SEGA's arcade was also of great importance to the company: profits from the company's SEGA World amusement centers and arcades continually outgrossed those of console, mobile, and PC until 2014. In 2022, following downturns in arcade profits due to the Covid-19 pandemic, SEGA fully exited the arcade business, selling all of its arcade division's shares to Genda. (Valentine 2020)

SEGA's Franchises

SEGA's most popular and profitable franchise/character is Sonic The Hedgehog. Once a SEGA console exclusive, Sonic has transitioned to a cross-platform mainstay. Since 1991, SEGA has published 93 Sonic-related games, including racing, educational, arcade, mobile, and mini-games, with the first being 1991's *Sonic The Hedgehog*, and the most recent one being 2022's 3D platformer *Sonic Frontiers*. The franchise's lifetime sales have totaled 1.51 billion units and free-to-play offerings (SegaSammy 2022) and it has also spawned a successful comic series and movie franchise. Many free-to-play Sonic-centric mobile games have also been released on iOS and Android, with 2013's *Sonic Dash* having grossed $10.8 million from in-game transactions from 290 million downloads as of 2020 (Forde 2020).

Aside from Sonic, SEGA has a slate of diverse, bestselling franchises, all of which are Japanese-origin IPs. SEGA's best-selling franchises are the tile-matching *Puyo Puyo* (37.7 million units sold), tower-defense RPG *Chain Chronicle* (25 million units sold), beat-em-up action-adventure *Yakuza* (19.8 million units sold), and iconic fighting franchise *Virtua Fighter* (18 million units sold). Additionally, SEGA has also acquired many brand-name IPs, namely turn-based strategy *Total War* (40.4 million units sold), football management simulation *Football Manager* (25 million units sold), and the critically acclaimed RPG *Persona* (15.5 million units sold) (SegaSammy 2022). Amongst the aforementioned franchise, only *Chain Chronicle* was first published in the 2010s, with all other IPs dating its first installment back 10 to 20 years.

Game Development Strategy and Current Restructuring

Despite arcade and multimedia ventures being a part of SEGA's storied portfolio, SEGA's video game development business has always taken precedence in the company's operations. The company's game development model in the 1990s was unique: SEGA's top designers would headline their nine semi-autonomous development studios and be afforded great creative control by SEGA's management (Fahs 2012). SEGA's games during this period were experimental IPs, but sales paled compared to other consoles' IPs. The Dreamcast's proposed killer app, *Shenmue*, was one of the most expensive video games ever and a massive commercial failure, prompting SEGA to restructure its development model.

Since the 2010s, SEGA has rebounded regarding financial revenues and critical reception following its tumultuous early 2000s period. The revival is attributed to SEGA's smart strategic shift to mainly acquire development studios with established IPs and continuing new installments for said franchises, as well as putting an emphasis on worldwide reach and internationalization. SEGA's target market has also drastically changed: the company, which once divided its Japanese and American developers to develop games for their own respective markets, now aims to localize Japanese-origin IP for the burgeoning Western markets. The change was brought about when the SEGA America president remarked that Japanese-origin IPs had become less popular worldwide in 2004 (Arcadeattack 2017). As of 2022, SEGA owns 8 development studios, all of whom had successful IPs in the Western markets prior to their acquisitions. This model has enjoyed major success: SEGA was named by Metacritic as 2020's best video game publisher, and its shares as of February 2022 have risen by 16% year-to-date (Nussey 2022).

Specifically, in its effort to internationalize Japanese IPs, SEGA also acquired two Japanese-based video game developers with proven worldwide success in Atlus (which developed 4 mainline *Persona* games prior to acquisition) and Ryu Ga Gotoku Studio (which published 4 mainline *Yakuza* games prior to acquisition). *Yakuza* will be rebranded into *Like A Dragon* in 2023 in an effort to further internationalize the title, while *Persona 5* became Atlus's best-selling game globally, with 77% of its sales being outside of Japan. SEGA aims to continue capitalizing on its wealth of assets and dormant IPs through "remakes, remastering, and reboots, etc., as well as offering them to subscription-based services and other forms of monetization across multiple channels" (SegaSammy 2022).

SEGA is currently committing to a "super game" initiative of developing global titles which satisfy requirements of online, IP utilization, multi-platform, multi-language, simultaneous worldwide release, and AAA. *Lost Judgement* and *Phantasy Star Online 2: Genesis* are examples of SEGA's "super game" model. In 2021, SEGA announced its partnership with Microsoft to use the latter's Azure cloud technology for this initiative, hinting at the company's future trajectory into cloud gaming (Batchelor 2022).

-C.T., Fall 2022

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Sound Design in Video Games

Overview

Sound design in games plays an indispensable role in providing players with interactive feedback and, more significantly, shaping their sensory and emotional experiences. A survey indicated that >70% of players felt immersive audio significantly improved gameplay (GameSoundCon 2023). Within the game industry, sound design typically refers to the creation, recording, editing, and integration of audio elements, commonly structured into four layers: sound effects, ambience, dialogue, and music (Collins, 2008). Beyond the audible creative choices, sound design constitutes a vital sector of game production, influencing development budgets, employment patterns, and overall market value. As games have evolved into complex multimedia products, audio has become a crucial component of player immersion and a key driver of commercial success.

Historical Development

The evolution of sound design in games mirrors the broader technological and economic advancement of the medium. In the 1970s and early 1980s, audio capabilities were restricted to simple synthesized tones, like those in *Pac-Man*, due to hardware limitations (Collins, 2008). With advancements in console and computer technology, games began incorporating richer soundscapes and digital sampling. By the 1990s, the introduction of CD-ROMs and full digital audio enabled full orchestral scores and sophisticated environmental sound effects like Valve's 1998 *Half-Life* (Collins, 2014). The 2000s marked the professionalization of game audio, characterized by dedicated sound departments and the emergence of middleware tools that streamlined the integration of audio into game engines. Today, with sound design functioning as both an artistic and technical discipline across studios of all sizes, supported by a global ecosystem of freelancers, software vendors, and outsourcing firms, we get the most realistic and reactive soundscapes in games like *Red Dead Redemption 2*.

Economic Role of Sound Design

Sound design occupies a distinct position within the game production economy. In major studio projects, audio budgets typically account for 5–10% of total production costs, covering labor, equipment, voice acting, and licensing (GameSoundCon, 2024). Independent developers often rely heavily on cost-effective middleware and royalty-free sound libraries. Employment in game audio encompasses roles such as sound designers, composers, dialogue editors, Foley artists, and audio programmers. Many professionals work on a freelance basis or under short-term contracts, reflecting the project-based nature of the industry (Pitkänen, 2013). The economic scope of sound design also extends to tool development: companies producing digital audio workstations (DAWs), plugins, and middleware generate substantial revenue through licensing and subscription models. Outsourcing has become standard practice, allowing studios to manage costs by contracting specialized audio houses or remote freelancers.

Impact on Game Value and Marketability

Sound design exerts a measurable influence on the perceived quality, emotional resonance, and commercial performance of video games. Academic research indicates that adaptive audio, spatialization, and musical scoring enhance player immersion and shape cognitive and emotional responses during gameplay (Collins, 2008). These experiential benefits translate into market advantages: games lauded for their audio design often achieve greater critical recognition through prestigious awards such as BAFTA or The Game Awards, reinforcing consumer perceptions of polish and production value (GameSoundCon, 2023). Furthermore, iconic sound assets—such as distinctive user interface cues, character voices, or musical motifs—become embedded in cultural memory and strengthen franchise identity across sequels and merchandise. For instance, Nintendo's recognizable coin pickup sound demonstrates how sound functions as intellectual property that enhances brand recognition (Collins, 2008). Consequently, sound design contributes not only to artistic expression but also to the economic sustainability and competitive positioning of game products.

Challenges and Trends

Although audio is widely recognized as essential to user experience, its production frequently faces budgetary constraints and lower prioritization compared to art and engineering during early development phases (GameSoundCon, 2023). Studios often compress audio timelines toward the end of production, limiting creative capacity despite high expectations for realism and interactivity. The economics of middleware tools further shape industry practices: platforms such as FMOD Studio and Audiokinetic's Wwise employ tiered licensing models that reduce entry barriers for independent developers while implementing per-title or negotiated fees for commercial projects, thereby transforming sound technology into a predictable cost structure for larger studios (Audiokinetic, 2023; FMOD, 2024).

Technological shifts continue to reshape the economic landscape. The rise of procedural audio techniques promises cost efficiency by enabling real-time synthesis rather than requiring large asset libraries, but it demands specialized programming skills and implementation time (Menexopoulos et al., 2023). Meanwhile, emerging AI-assisted sound design, including voice synthesis and generative effects, may reduce marginal asset creation costs but introduces concerns about authorship, voice actor labor rights, and quality assurance. These transitions intersect with increasing labor discussions in game audio, including crediting standards, fair compensation, and unionization.

Outsourcing Companies

Outsourcing has become structurally important in the global game audio economy. Specialized studios and freelance collectives allow developers to access niche expertise—such as Foley recording, performance capture, voice direction, or spatial audio mixing—without maintaining full-time staff. Outsourcing permits studios to convert fixed labor costs into project-based expenditures, enabling flexibility across production cycles (Gamasutra/GameDeveloper, 2022). Market research further indicates steady growth in the audio outsourcing segment, with the value of contracted audio production estimated in the hundreds of millions to over a billion USD

globally, driven by content complexity, cross-platform releases, and remote workflows accelerated during the 2020s (DataIntelo, 2024).

However, outsourcing also intensifies competitive dynamics. As boutiques and freelancers multiply internationally, price pressures emerge, sometimes constraining margins for service providers while giving studios wider choice. This market decentralization has expanded access to professional audio services for smaller studios while simultaneously creating instability for contractors whose livelihoods depend on fluctuating demand and uneven geographic payment norms (Gamasutra/GameDeveloper, 2022).

Middleware and DAWs

Game audio relies on a technological ecosystem that includes middleware engines, digital audio workstations (DAWs), and specialized plugins. Middleware platforms such as FMOD and Wwise dominate professional workflows because they enable interactive sound behavior, profiling, and adaptive systems directly within game engines. FMOD's licensing model, which provides free or low-cost tiers for independent developers alongside enterprise-level fees for larger commercial projects, has been instrumental in democratizing access to advanced audio functionality (FMOD, 2024). Similarly, Audiokinetic describes its Wwise pricing as deliberately flexible, enabling small studios to adopt the tool without prohibitive expense while structuring revenue models for larger productions requiring technical support and additional features (Audiokinetic, 2023). As a result, middleware economics shape production decisions by lowering entry barriers while creating vendor ecosystems that foster long-term tool adoption.

DAWs form the second layer of the tool economy. Software like Pro Tools, Adobe Audition, and REAPER is widely used for editing, mixing, and mastering sound assets. REAPER is particularly influential among freelancers and small studios due to its inexpensive one-time licensing and extensibility through scripting, which makes professional audio workflows accessible at low cost (REAPER, 2024). Conversely, subscription-based tools such as Pro Tools remain entrenched partly due to compatibility with large studio pipelines, illustrating how cost considerations coexist with institutional inertia.

Emergent technologies—including procedural audio systems and AI-based sound generation—are reshaping tool economics. Procedural frameworks potentially reduce storage and repetitive asset creation by synthesizing real-time audio, but they increase development complexity and require programmers familiar with advanced synthesis approaches (Menexopoulos et al., 2023). Generative AI platforms reducing marginal asset costs challenge traditional labor models and raise unresolved issues surrounding creative authorship, copyright, and quality control. Taken together, audio software platforms participate in a broader economic structure in which cost models, learning curves, and workflow integration influence production decisions as much as creative intent.

-O. L., Fall 2025

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Source Engine

Overview

Source, developed by Valve Corporation, is a proprietary 3D game engine used popularly by game developers through the early 2000s through the mid to late 2010's. Popular Valve titles such as *Half-Life 2*, *Portal*, *Team Fortress 2*, and *DotA 2* had all been initially developed on Source. Debuted publicly on June 1st, 2004, the Source family of tools have contributed largely to the contemporary modding scene, indie game development, machinima content, and online developer communities. Source itself being an amalgamation of various source codes and modifications, Valve portrays a value system of community creation and experimentation in each iteration and use case of Source.

History and Development

Source engine was preceded by GoldSrc, a modification of id Software's proprietary engine used to develop their titles *Quake* and *Quake II*. (Bokitch 2002) GoldSrc was originally built during the development of Valve's debut title, the critically acclaimed 1998 first-person-shooter *Half-Life.* Shortly after the release of *Half-Life*, Valve developed a software development kit (SDK) for GoldSrc, allowing developers to directly modify and develop programs on GoldSrc. In conjunction with the release of the GoldSrc SDK, Valve released *Team Fortress Classic*, a port of a *Quake* mod titled *Team Fortress*, that runs natively with GoldSrc. (Planet Fortress 2006) Following the release of the GoldSrc SDK, which allowed developers to create total conversion mods of *Half Life*, the original 1999 build of *Counter-Strike* was developed by Minh Le and Jess Cliffe, who were then hired by Valve to officially develop *Counter-Strike* for a standalone release in 2000. (Henningson 2020) In addition to many fan created mods, GoldSrc found continued use by Valve to develop expansions for both *Half-Life* and *Counter-Strike* through 2004.

Tangent to GoldSrc, Valve began to fork off code as */$Src* in their coding libraries. Unlike their management of the GoldSrc code, which remained largely unchanged, */$Src* consistently saw changes and updates based on a project to project need, particularly for Valve's upcoming *Half-Life 2*, slowly developing itself into an engine of its own. (Thomsen 2009) This new engine, internally referred to as Source, made its public debut with the release of *Half-Life: Source*, a remake of *Half-Life* in the new Source engine. Shortly after, as a test to understand modding development on Source, Valve released *Counter-Strike: Source* in October 2004. On November 16th, *Half-Life 2* released, showcasing the advanced features Source had to offer over its predecessor.

One of Source's most defining characteristics is its lack of hard-numbered version updates, but rather a stream of incremental modular updates. Valve's digital distribution platform, Steam, worked hand-in-hand with Source to consistently provide users with the most up-to-date improvements, tweaks, new features, and modules. This allowed Source engine to stand out largely from its competitors, which ran into the issue of backward compatibility breaks with the release of new engine updates. (Thomsen 2009) Alongside with the development and release of Valve titles, such as *Half-Life 2: Episode One*, *The Orange Box*, and *Left 4 Dead*, Source occasionally saw larger jumps in modular improvements as a result of Valve's innovation with the engine.

Similar to GoldSrc's software development kit using *Half-Life* as a base game to which developers can build mods, Source's SDK utilizes *Half-Life 2* as its base game. Source SDK's most significant tool is Valve Hammer Editor, a level editor originally designed for id Software's *Quake* which was then purchased by Valve for use with GoldSrc and Source titles. (Valve Developer Community 2020)

Source and Machinima

Source has played a significant role in the creation and popularity of machinima content. Machinima content refers to the creation of real-time computer graphics in order to create video content, differing from traditional animation which uses pre-rendered graphics. Video games have commonly been used for the development of machinima content as game engines produce real-time computer animation. Similar to Source's own development, id Software's *Quake* played a large role in the popularity of narrative machinima's beginning in the mid to late 1990's, most iconically with the release of *Diary of a Camper* in 1996. (Lowood 2006) In the decades following, machinima has remained a highly popular form of fan-generated video content.

Source Filmmaker is Valve's official 3D graphics toolset used for the creation of animated films such as game trailers and pre-release content, built on Source engine. Initially used in the creation of marketing content *Day of Defeat: Source* in 2005, Source Filmmaker's potential saw its most iconic use in promotion for Valve's *The Orange Box* collection, with the development of promotional content for their upcoming title, *Team Fortress 2*. (SFM Team 2013) Beginning May 2007 and concluding June 2012, Valve produced a series of machinimas titled "Meet the Team," each video comedically introducing the character classes present in *Team Fortress 2*. Following the release of the final "Meet the Team" video, a public release of Source Filmmaker was made available as an open beta for the development of fan-made machinima content. Assets from *Team Fortress 2* and the "Meet the Team" series are available natively in the base download of Source Filmmaker.

Garry's Mod, a sandbox physics game developed by Facepunch Studios and officially published by Valve in 2006 has been another critical Source-based tool in the production of machinima content. The game was developed as a *Half-Life 2* mod in Source in which players have the ability to freely manipulate the world around them, allowing for creative compositions. Though not originally intended to be used for video production as Source Filmmaker had been, the title's model manipulation tools and easy access to fan-made content and modifications have made it a popular tool for machinima creation. (Livingston 2019)

Source 2

Development for a successor to Source began as early as 2007 following the release of *Half-Life 2: Episode Two*. (Marks 2020) At the 2015 Game Developers' Conference, Valve officially announced Source 2, which had been soft-launched in 2014 as a toolset for user-content creation for *DotA 2*. (Kuchera 2014) This new engine features Rubikon, Valve's new in-house physics engine; Vulkan, an updated 3D graphics interface; virtual reality game development functionality; and an updated Hammer Editor, among other improvements and new features. (Valve Developer Community 2021) In 2015, Valve released their first title utilizing Source 2, *DotA 2 Reborn*, an overhaul of *DotA 2*. (Macy 2015) In 2020, Valve released their first virtual reality title built on Source 2, *Half-Life: Alyx*, which was released on SteamVR, their virtual reality centered digital distribution platform.

Keeping in line with Source's value system of community creation and experimentation, Source 2 was released free-of-charge for development. Games developed for commercial retail must be sold on Steam, though they are allowed to sell on other platforms, marketplaces, or even directly from business to consumer. (Savage 2015)

Impact

Source Engine has proven to serve as a challenger to many trends present in the contemporary game development scene. Its focus on usability rather than vast technological feats has allowed it to stand out from its competitors. Valve's continued support of modding, user-development, and iterative improvements has made Source an anchor for community building. Garry Newman, developer of *Garry's Mod*, stated "Why would the developer let you create new missions, weapons, characters and tools when they can spend a couple of weeks doing that and sell it as DLC? It hurts my brain to think what my life would be like now, if Valve had the same attitude towards modding." (Hakki 2016)

-M.G., Fall 2021

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South Korea, Esports

Overview

South Korea has a very enthusiastic gaming culture that has led to the country having one of the biggest esports markets in the world alongside China and the US (Esports Insider 2022). This rise has had an impact on Korean popular culture as well as influencing teens in choosing their future path in life. Cultivation of such culture was helped through the ubiquity of "PC bangs," or public internet cafes which provided an environment for gamers to indulge in their games of interest (Conner 2022). League of Legends is the most played and viewed game in Korea (Chang 2022). In 2020, South Korea's gaming industry was worth $6.4 billion, which was as much as 67.2% of its cultural content industry (Episkopos 2020). As of 2022, 4,274 esports players are from South Korea and they have earned a total of $117.8 million in prize money, being third globally only below the US and China (Chang 2022).

Development of Esports in South Korea

The development of South Korea's gaming culture, along with esports, could be stated as somewhat "coincidental" (Rea 2016). In 1997, a financial crisis hit Korea which proved detrimental to the South Korean economy. This incident naturally led people to begin private businesses instead. One of them was PC bangs, which offered extreme high-speed internet and online games for a cheap hourly price (Rea 2016). These internet cafes turned out to be extremely successful, multiplying to over 13,000 in just 2 years (Rea 2016).

The popularity of PC bangs grew with the release of Blizzard Entertainment's StarCraft in 1998. StarCraft became massively popular in Korea, as Korea was responsible for a third of StarCraft's global sales that year (Rea 2016). Soon, people would go to PC bangs to not just play StarCraft, but to watch other players play. Recognizing the growth of fans and the influence of StarCraft, PC bangs began hosting unofficial tournaments with rewards (Jin 2020). Teams were formed with managers and coaches. Soon, StarCraft tournaments began to be aired on television with major companies such as Samsung and Korean Air sponsoring teams. In 2000, the Korea e-Sports Association (KeSPA) was established (Jin 2020). In 2003, the first Starcraft Pro League was formed (Lee 2021). The professional StarCraft league finals in 2004 attracted an audience of approximately 100,000 (Rea 2016). Professional StarCraft player Lim Yo-hwan was recognized as a "cultural celebrity" by the Blue House Cultural Industry Policy Report in 2003 (Rea 2016). This was the beginning of esports in South Korea.

Currently South Korea has a number of esports leagues and hosts multiple tournaments organized with ESL, Riot Games, and Ubisoft who also have their own leagues active in the country (Esports Insider 2022). Furthermore, South Korea has hosted many major esports tournaments such as the International Esports Federation's global esports tournament (Esports Insider 2022).

Public and Private Support

One of the first events that officially recognized and supported the esports scene in South Korea was the World Cyber Game Challenge held in Seoul in October 2000, sponsored by Korea's Ministry of Culture (Esports Insider 2022). This was one of the first of the world's first international esports competitions. In 2020, the government support for the country's esports industry was estimated to be around 17.9 trillion won (about $15 billion), but experts said that this was very little (Roh 2021). However, the Ministry of Culture, Sports and Tourism are willing to do more after esports has been officially included into the 2023 Asian Games.

The private sector has been more active in participating in developing the esports industry. Nongshim, an instant cup noodle company, launched its own professional League of Legends team in 2020 (Roh 2021). Many other South Korean corporations such as SK Telecom, Kia Corp, Hanwha Life Insurance, and KT Corp are in on the action as well. SK Telecom's team T1 even opened its esports academy in 2021. The CEO of Nongshim Esports Oh Ji-hwan states that the industry is growing but the "state-led support measures have been weak, with corporate sponsorships and private academies mainly having driven the industry" (Roh 2021).

Cultivating Players

According to a survey by South Korea's Education Ministry in 2020, an esports player was the fifth-most popular future job among Korean students after digital content creators, athletes, and doctors (Choe 2021). One of the main methods of how teens develop themselves into professional gamers are by getting into esports academies set up by esports companies. For example, Game Coach Academy, the world's first esports academy was built in Seoul in 2015 (John 2022). Supplied with teachers and classrooms, this academy is a school for aspiring gamers where they have training sessions, study sessions, and even get homework. Esports company Gen.G launched its own Seoul Elite Esports Academy in 2019 (Choe 2021). This school not only trains gamers but also teaches the American curriculum and offers an American high school diploma to allow their graduates to pursue careers in the US.

Although Korean schools never had any cases of accepting students based on their esports skill unlike American univities, things are gradually changing. Korean universities are also starting to recognize esports and have begun to bring esports into their academic programs. In 2007, Chunnam Techno University, about 200 miles south of Seoul, began a two-year course on esports (Denyer and Kim 2019). In 2014, Chung-ang University in Seoul officially recognized esports players as athletes, which meant students could be accepted by their gaming skills not just by their academics (Chang 2022). Hanshin University also constructed a graduate school where students could learn about esports regarding "information technology, regulatory policy, and technology innovation" (Chang 2022). Few Korean high schools are also teaching courses on esports and forming teams: Ahyeon Polytechnic High School is one of them (Denyer and Kim 2019).

Concerns of Game Addiction

Korea's public concern of game addiction in teens has existed for many years since the ubiquity of PC bangs and the growing popularity of online computer games. Now with the rise of esports, the fact that professional gamers practice up to 10 hours a day has led to politicians, parents, and

the media connecting esports to game addiction. In response to such concerns, there have been state actions that have addressed this issue. The Saenuri Party has initiated legislation that would include game addiction as the Korea's fourth "official" addiction with alcohol, drugs, and gambling (Rea 2016). The bill has not yet been passed. Furthermore, the Shutdown Law, an amendment to the Juvenile Protection Act, was passed in 2011 which bans teens under the age of sixteen from logging into online games from 12 AM and 6 AM. As a byproduct this law had an impact on esports gamers, since some players were under sixteen and therefore could not participate in matches that were past midnight. Jun Byung-hun, the President of KeSPA from 2013 to 2014, described the law as an "ineffectual, politically motivated measure that represents a misunderstanding about how to manage the addiction problem" (Rea 2016).

Yet at the same time, these views are slowly changing. In August 2020, the government announced that they would abolish the Shutdown Law that bans teens below the age of 16 from playing online computer games from 12 AM to 6 AM (Roh 2021). This was also mainly due to the fact that teens are using their phones instead which would mean the law would have no real effect. According to the Korea Creative Content Agency, the percentage of parents who play games with their children increased by 11.5 percent from 2018 to 2021, resulting in a total of 57.5 percent (Lee 2021). Although it is still very normal for parents to disagree with their children playing video games or pursuing a career in esports, there is a gradual change of support and recognition in the perspective towards the gaming culture and esports in South Korea.

-S.Y., Fall 2022

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South Korea, Labor Politics

The South Korean video game industry came in fruition due to the support of the South Korean government. Data collected in 1995 shows that the government enacted the Framework Act on Information, which established the Korean Information Infrastructure (Im and Seo 2005, 189). The goal of this plan was to build an advanced nationwide information infrastructure including communications networks, Internet services, application software, computers, and information products and services (Dal 2010, 30). The Korean government invested $11 billion in broadband services between 1998 and 2002 – $9 billion more than the U.S. government planned to invest (Dal 2010, 22).

Since the late 2000s, the South Korean government and service providers have worked together to upgrade the speed of broadband to 100 Mbps to promote the use of Internet telephone, movies, games, Internet Protocol television, and online education (Dal 2010, 22). The South Korean government continues to regulate and promote the video game industry by growing broadband services, providing infrastructure, government initiatives, and market competition (Dal 2010, 33). With the availability of PCs and high-speed broadband internet, South Korea's market expanded significantly. Data shows the immense growth of the South Korean video game market from 2005 – 2006, skyrocketing from 3.9% to 58.1% (Invest Korea, 2018, 29). Since 2006, the market is flourishing, rising from 7.45 to 12.08 trillion South Korean won in 2018 (Invest Korea 2018, 17).

The video game industry in South Korea has become one of the most significant in the world. Transnationalization has been fundamental to the growth of the South Korean game industry. Beginning in the 1990s, foreign companies such as Blizzard Entertainment, Electronic Arts, and Nintendo began investing money in the South Korean game market (Dal 2010, 29). Since then, South Korea has kept its ties with many foreign companies. One prominent example is Blizzard Entertainment, who recently announced a Korean Starcraft League, which aims to be Blizzard's flagship eSports tournament for the beloved strategy game (Blizzard Press Center 2018).

South Korean video game companies, such as NCSoft, have globalized. The company has since launched a new mobile-gaming division based in San Mateo, California called Iron Tiger Studios and released a Westernized version of its popular martial arts game, *Blade and Soul* (Ewalt 2018). Today, the game has 4 million players, making it one of the biggest Korean-developed games that NCSoft has launched in North America and Europe (Ewalt 2018). Other companies, such as Nintendo, have successfully set up stores in South Korea, actively bolstering South Korea's global prominence. South Korea is also currently one of the most valuable countries in

the video game industry, especially for mobile games, as its smartphone penetration rate is the second highest, 73%, following United Arab Emirates' 73.8% (Ewalt 2018). The country's video game development companies continue to globalize to Western markets, while allowing and working alongside non-Korean companies from the U.S.

Currently, South Korea's online gaming industry's revenue amounts to $764 million, showing an annual growth rate of 9.2% (Statista Digital Market Outlook 2018). Statistics also show that the country's growth rate is 1.3% in 2018 – a 13.3% raise from 2016 (Invest Korea 2018, 28). In 2018, South Korea is the fourth biggest game market in the world, boasting $5.6 billion in game revenues and 28.9 million players (Sohn 2018). With a player base containing half of South Korea's overall population, South Korean television companies have installed multiple TV channels, dedicated to broadcasting eSports competitions (Hindustan Times 2018). Euromonitor – an independent provider of market research – thus expects Korea's overall game market to reach $11.58 billion in 2022, growing at a compound annual growth rate of 19% (Dal 2010, 30).

Sexism in the South Korean Video Game Industry

Across all sectors of the game industry, the workplace is male-dominated, with 79% of the workforce being male, overpowering the female workforce by a multiple of 3 (Dal 2010, 42). While around 90% of game producers are men, alongside other major areas, such as computer programming, female workers are relegated to general secretarial positions, marketing and PR, as well as scenario writers (Dal 2010, 42). Due to a heavily patriarchal structure Korea has actively overlooked its female online gaming audience, which accounts for 65% of South Korean women aged 10 to 65 (South China Morning Post 2018).

Sexism is a countrywide belief in South Korea, and the video game industry is not exempt from it. The patriarchy and toxic gender relations have left women as second-class citizens, who suffer from undue objectification and discrimination (Chang and Lee 2006, 297). According to the Ministry of Employment and Labor, women make up 2.3% of corporate executives at 348 of the largest 500 companies in South Korea, earning only two-thirds of what men earn (Chang and Lee 2006, 297). Additionally, the World Economic Forum ranks South Korea 115th out of 145 countries in gender equality.

The longstanding male-centric and meritocratic ideologies of Korean culture has forced Korean women to face gender-biased oppression. The latest scandal began when the CEO of IMC Games accused a female employee, Sung Hye-jin, of following several feminist groups on Twitter and retweeting a post featuring a word that described sexist men (South China Morning Post 2018). Further charged with harboring "anti-social ideologies," Sung faced backlash from

key clientele, who called her a “cancer-like creature” who followed a dirty ideology” (South China Morning Post 2018). The misogynistic action left many women in shock, according to the Korean Federation of Trade Unions, and accused Kim and other game firms of suppressing female employees’ freedom of expression, or, “thought policing” their female employees (Chang and Lee 2006, 308).

This country-wide fear and hatred of feminism, female game players, and developers is still prevalent – continuously undermining the burgeoning number of women who participate in game play and development.

Crunch in the South Korean Video Game Industry

South Korea’s play culture has always been a dark symbol of overwork and fatigue, holding the second-longest hours among the Organization for Economic Cooperation and Development countries (The Straits Times 2018). In fact, South Koreans put in 240 more work hours per year than Americans do – another extra month of eight-hour workdays (Organization for Economic Cooperation and Development Data 2018). Game developers in South Korea argue that many game developers are put into long hours, especially when there is high competition with China (Organization for Economic Cooperation and Development Data 2018). This high-stress period has been coined “crunch time,” effectively highlighting how developers experience a period of high intensity work, with no overtime pay, just before a game is released (Asher 2018). Companies work their employees nearly 60 hours or more during weekdays and weekends, blatantly opposing the Labor Standards Act which currently limits work to 52 hours a week (Umeda 2018). However, even the Labor Ministry has misinterpreted its own rule, excluding Saturday and Sunday, which stretches the limit to 68 hours (Umeda 2018). The South Korean game industry capitalizes on the immaterial labor of its workforce, exploiting workers to sickness and even death.

In recent memory, three deaths have occurred in South Korea at one of the country’s top mobile game companies, Netmarble Games. In 2018, the South Korean government and Netmarble Games, have taken measures to put a means to an end to “crunch time.” President Moon Jae In’s administration has pushed for a revision to the labor law, hoping to strictly limit the maximum working hours to 52 hours a week, including weekends (Umeda 2018). The administration hopes that this revision will account for the promulgation of 800,000 new jobs in the public sector and greatly increase the quality of South Koreans (Umeda 2018).

Netmarble Games has also been pressured by South Korea’s justice department and labor divisions to edit how the company handles overtime and overtime pay. The company has

prepared a plan to limit overworking; the initiative is called the "Selective Working Time System," and it hopes to limit work to seven hours per day, with all work between 10 P.M. and 8 A.M. forbidden without prior permission from an executive (Royce 2018). Additionally, pregnant employees work a maximum of 30 hours a week (Royce 2018). News regarding the detriments of crunch time appears to have diminished for now, but only time will tell if these legalistic measures are successful.

-H.H., Fall 2018

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Speedrunning

Overview

Speedrunning is the practice of playing a video game with the goal of completing either the game, a section of it, or a task within it as quickly as possible. Speedruns are undertaken for the purpose of competing for the fastest time or for the fun of approaching a game in such a challenging and unconventional manner. Thus, recordings or livestreams of speedruns make for impressive and entertaining content, allowing for millions who are not actively speedrunning games themselves to become a part of the speedrunning community. The size and scope of the speedrunning community, with millions either participating in or watching speedruns for thousands of different games, has caused it to become an impactful part of the game industry.

History of Speedrunning

Though speedrunning as a practice is essentially as old as gaming itself, the advent of the internet allowed for the speedrunning community to truly grow. Speedrunners now could share recordings of their runs along with their strategies, fostering an environment of both collaboration and competition. The first game that had such an online community was id Software's *Doom*. Released in 1993, *Doom* allowed players to record their runs in the form of a demo file, essentially a record of player inputs that could be replayed within the game engine. Because demo files were so much smaller than video files, they were able to be easily shared over the early 90's internet, and many websites were created to share the files. One site, in particular, COMPET-N, was created for players to share demo files of them beating levels as quickly as possible. Those who had attained the fastest times would be featured on the site's leaderboards, and consequently, like the name of the site implies, gamers began competing to attain the fastest times (Merrill 2003).

Another crucial speedrunning development came in the form of categories. First utilized on the *Doom* demo file website *Doom Honorific Titles* (known as the DHT), categories emerged independently of speedruns as a way to pose an additional challenge to players. Categories such as pacifist mode (where you weren't allowed to harm enemies) and Tyson mode (named after Mike Tyson in which you could only use your fists) became popular (Merrill 2003). Categories would go onto fuse with speedrunning so that an individual game would have multiple different speedrunning categories, each with its own unique challenges. Categories would become particularly important when the utilization of glitches became a central part of speedrunning, thanks to their ability to let runners get significantly lower times. The category of glitchless speedruns came into existence in response, putting limits on the glitches a speedrunner may exploit, forcing them to play the game in a manner more in line with what was intended by the developers. As stated above, however, both glitched and glitchless speedruns require tremendous skill and hard work, they just present different challenges to the runner.

As the internet and speedrunning community developed further, speedrunners began congregating on sites meant for all games to share video recordings of their runs. As of right now, Speedrun.com is the undisputed home of speedrunning, featuring runs for over 26,000 games with multiple different categories for many of them (ShadowDraft 2021).

Developers and Speedrunners

The relationship between developers and speedrunners has the potential to be quite tenuous, as speedrunners partaking on glitched runs essentially seek to 'break' the game developers have labored over for years. However, many developers have begun to realize that a thriving speedrunning community for a game is incredibly beneficial to its success. For example, a game like *Celeste*, a 2018 indie platformer, has been able to maintain popularity for far longer than anyone would typically expect, in large part due to a passionate speedrunning community that continues to make headlines for their remarkable achievements and wonderfully inclusive nature (Haddick 2021). Further, a speedrunning community is uniquely advantageous because it creates a player base that will keep playing and staying involved after beating the game for the first time. Given that the vast majority of speedrun games are single-player, this level of player retention is rare. In an era where single-player games must compete with live service games for relevance, speedrunning communities are able to consistently breathe new life into games with new exploits, strategies, and categories. Additionally, given that the current most popular game to speedrun is the twenty-five-year-old *Super Mario 64*, there is no limit to how long a game's lifespan can be extended by a passionate speedrunning community (Heubl 2021). A speedrunning community provides an economic benefit to developers, as they allow for long-term growth and popularity.

In terms of catering to the speedrunning community, developers often face the challenge of how to best patch their game and improve the gameplay experience for non-speedrunners while not removing their speedrunning community's favorite exploits. Some studios, such as Insomniac Games, developers of *Ratchet and Clank: Rift Apart*, have achieved this by actively working with their speedrunning communities, directly reaching out to speedrunners to find solutions that will appease both parties, such as adjusting how certain exploits worked so that they almost assuredly do not impact non-speedrunners while remaining usable (Haddick 2021). Developers have also been known to use social media to support and draw attention to their speedrunning community and help foster growth. This strategy is perhaps best exemplified by IGN's series of videos in which developers react to speedruns of their games, often expressing their admiration over the ingenuity and skill of their speedrunning community (Morton 2021).

Livestreaming Speedruns

The growing popularity of streaming has been similarly impactful for the growth of speedrunning, as speedrunning has become a staple form of content on sites like Twitch and Youtube Gaming. Given that speedruns must be submitted as video recordings to be featured on leaderboards, livestreaming attempts makes practical sense. Additionally, high-level speedrunners will often stream their runs in order to make money while they chase a new world record, profiting off subscriptions and donations like any other Twitch streamer would, allowing for speedrunning to essentially become their profession (Ip 2017). Further, content creators who are more known for their personality than their gameplay will also stream speedruns in order to draw in viewers or compete with other personalities. The Youtuber and Twitch Streamer Dream has drawn in over 100 million views on some of his *Minecraft: Java Edition* speedruns on Youtube, making it some of the most popular gaming content on the entire internet. At the same time, the most popular streamer on Twitch, xQcOW, found success with his *Minecraft* speedrunning competition with Forsen, another streamer, as the two continually bested each other times over the course of a few months. Neither xQcOW nor Forsen were close to competing for world records, but their speedruns proved to be some of the most popular content on Twitch, with xQcOW often drawing in over one hundred thousand concurrent viewers (Richman 2021). The popularity of such content shows that speedrunning is a profitable form of content for creators regardless of their ability to top leaderboards, displaying that a broad casual audience is invested in consuming and supporting speedrunning content, not just the niche community speedrunning arose out of.

Livestreamed speedrunning has also shown a profound capacity to do good. Games Done Quick is a charity organization that hosts days-long streams in which various different speedrunners take turns completing runs of their favorite games live to hundreds of thousands of viewers. These viewers are encouraged to donate money, all of which goes to charity. These events are known for raising millions of dollars, with the most recent in-person edition raising over $3 million for the Prevent Cancer Foundation (Good 2020). The massive popularity of speedrunning content, combined with developers' desire to cater to the speedrunning community, speaks to how the practice of speedrunning has the potential to become an even more significant part of the game industry in the coming years.

- J.H. Fall 2021

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Square Enix

Overview

Square Enix is a Japanese video game publisher and development company founded on April 1st, 2003, as a result from the merger of two competing Japanese video game companies Square and Enix (IGN Staff 2012). Square Enix Holdings Co., LTD's headquarters is located in Tokyo, Japan, and is the official name of the holding company that is responsible for leading all of Square Enix's development studios across the world, including North America, Japan, and Europe. Square Enix owns an expansive, and well known portfolio of intellectual property including *Final Fantasy*, *Dragon Quest*, *Tomb Raider*, and *Kingdom Hearts*.

Although Square Enix was officially founded in 2003, the companies Square, and Enix, have been developing and distributing popular Japanese fantasy RPGs, namely within the *Final Fantasy* and *Dragon Quest* franchises respectively, dating back to 1986 across all major platforms (Square Enix Group, n.d.). This long history with the genre of the Japanese RPG strongly contributes to the company's post-merger identity today, and is the primary component that defines the company within the video games industry. However, as the company continues its global expansion, Square Enix now manufactures and distributes a diverse range of titles across all genres.

Company History

Beginning with the company's merger in 2003, Square and Enix decided to join forces citing enhanced development efficiency and increased global competitive power as the primary reasons for the merger. At the time of the merger, the two companies saw each other as their biggest competition domestically in Japan, as they both specialized in the development and distribution of role-playing video games, and both reached new sales records the year before the merger. As a result of the merger, Square Enix would become a Japanese role-playing game juggernaut in the industry (IGN Staff 2012).

Just two years later, in 2005 Square Enix made their first acquisition in the takeover of Taito Corporation, the Japanese arcade powerhouse responsible for creating the influential *Space Invaders*, and operating over 250 arcades in the nation, to further strengthen the company's stance domestically, and to increase Square Enix's early mobile gaming capabilities (Uranaka 2005). Taito's early recognition of the potential mobile gaming industry led to the creation of Square Enix's internal mobile development studio in 2008, with the intent of creating digital interactive experiences on mobile devices pre-smartphone era, and eventually during the smartphone era, utilizing Square Enix's existing globally recognized intellectually property (Square Enix Group, n.d.).

Beginning in 2009, Square Enix set sights on European expansion, with the acquisition of U.K. based video game publisher Eidos. The takeover added longstanding, and recognizable video game franchises such as *Tomb Raider* and *Hitman* to Square Enix's intellectual property portfolio. The addition of Eidos' franchises gave Square Enix the license to develop and publish new titles, under the name of historically popular franchise names, that appeal to western video

game audiences. Square Enix saw immediate success from this acquisition, with Crystal Dynamic's reboot of the *Tomb Raider* franchise setting sales records for the franchise in 2013, with 8.5 million copies sold (Chalk, 2015).

The company's last initiative occurred in 2011, with the launch of yet another mobile game development studio, known as Hippos Lab. In contrast to Square Enix's other mobile development studios, Hippos Lab is responsible for creating new and original mobile gaming experiences for smartphones, rather than adapting Square Enix's traditional intellectual property to a mobile platform (Melanson 2011).

Final Fantasy

The *Final Fantasy* franchise is Square Enix's most successful video game franchise, and one of the most successful video game franchises of all time with a total 144 million units sold, across 54 entries in the franchise, grossing $11.7 billion as of 2020. The series, inspired heavily by Dungeons and Dragons, was created for Nintendo's first console, the Famicom in 1987 by Hironubu Sakaguchi, and published by Square. The first *Final Fantasy* was one of the first fantasy RPGs created for Nintendo's console, and incorporated a distinctive art style with a robust soundtrack that attracted RPG lovers in Japan (Nix 2020). The first entry to the *Final Fantasy* franchise followed the traditional mold of a role-playing game, and set the template for all following entries: the player controls a party of characters, and follows them across a large scale adventure with world-impacting stakes. Along this adventure, the player immerses themselves in a fantasy setting, through multiple storylines, character developments, and quests, while staying actively engaged through a level-up progression system and turn-based strategic combat (Adler 2020).

Final Fantasy was not introduced to the North American market until three years after release, due to a long process of localization, but it became the most popular RPG in the market, beating out competitors *Dragon Quest* and *Phantasy Star II*. *Final Fantasy* for many gamers in the U.S. was the first in-depth RPG video game experience they had played, and it generated a loyalty to the franchise that would be crucial in its future success. While the next few entries to the *Final Fantasy* series found moderate success on Nintendo systems, *Final Fantasy VII* brought the series to a new level. Square's decision to shift development platforms to Sony's PlayStation, due to its 3D rendering capabilities on disc, rather than cartridge on Nintendo's N64, gave them the ability to craft a video game environment never seen before and captured the attention of North American audiences. The cinematic presentation of the game made players feel like they were playing a movie, and lent itself perfectly to the core gameplay of *Final Fantasy VII*. The game released in 1997 and went on to sell over 10 million copies globally, and firmly cemented itself as the premier RPG-genre video game franchise. While the franchise continued to find success thanks to its name, it never reached the same heights as *Final Fantasy VII* again (Nix 2020).

Square Enix Today

While Square Enix has found inconsistent success with a variety of their franchises, they are still one of the industry's major companies. The *Final Fantasy* series continues to be the primary component of Square Enix's business with *Final Fantasy XV* becoming the fastest selling entry of the franchise in 2016, selling 5 million copies in one day (Dring 2016). In 2017, *Final Fantasy*

XIV, Square Enix's active MMO for the franchise, drove the active player base numbers up to 10 million, which is just short of World of Warcraft's record of 12 million active users, thanks to continued support and expansions (Batchelor 2017). Most recently, part one of *Final Fantasy VII Remake*, a contemporary recreation of the original title of the same name, launched on April 10 to high critical reception, and has sold 3.5 million copies since then (Heaney 2020). Square Enix has stayed a major player in the games industry thanks to the constant evolution of a video game franchise 33 years old, and by the diversification of a strong intellectual property portfolio made through acquisitions and mergers.

-J.E., Spring, 2020

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Steam

Overview

Steam is a digital content distribution platform developed by Valve Corporation and released on September 12, 2003 (Steampowered, 2023). It was initially designed to deliver automatic game updates for Valve's titles and has since expanded to be the dominant PC game distribution platform in the Western market (Wiled and Sayer, 2022). On Steam, players can purchase, download, update, and play various digital games without going to a physical store. Steam also provides digital rights management, game production tools, social interaction, game community, and other functions (Steampowered, 2023). As of 2023, Steam had 120 million monthly active users, and Steam's catalog in the US includes 50,361 games (Dean, 2023). Steam utilizes the online marketplace model where it connects buyers with sellers, collecting fees and commissions, like exacting a 30% commission for the game that has a net sales volume of under $10 million, for providing services, facilitating transactions, and giving game developers exposure (Cuofano, 2023). A Survey by GDC in 2019, shows roughly 47 percent of the respondents sell their games on Steam, underscoring the substantial presence of Steam within the PC/MAC gaming market (GDC, 2019). As of 2022, Steam has $7.6bn gross revenue including only full-game sale revenue and in-app purchases (VG Insights, 2023).

History

Steam's ascent to becoming the dominant PC digital distribution platform in the West can be traced back to its strategic evolution and expansion since its inception. Initially launched in 2003, Steam served primarily as a platform for patching and accessing Valve's games. This foundational step set the stage for Valve's significant move in 2004 with the launch of Half-Life 2, which required players to register on Steam, thus shifting from traditional digital ownership to game licenses tied to user accounts (Сергеев, 2021).

This transition was pivotal, marking the beginning of Steam's expansion beyond a mere patching and download tool. In 2005, Valve further broadened Steam's scope by initiating distribution agreements with third-party publishers. The release of *Rag Doll Kung Fu* as the first third-party game on Steam signaled a new era for the platform, expanding its game offerings and attracting a wider audience. Over the next 12 months, Steam added over 40 diverse titles to its platform, like Codename: Gordon and Day of Defeat, significantly broadening its game offerings (Steampowered, 2023).

The transformation continued as Steam evolved into a comprehensive digital store, a significant shift from its original purpose. This expansion was further bolstered in 2012 with the introduction of Steam Greenlight. This initiative allowed Steam users to have a say in the platform's game offerings by voting on indie game projects for release on Steam (Wiled and Sayer, 2022). However, the Greenlight process faced criticism from developers for its lack of transparency and unpredictability.

Responding to these concerns, Valve replaced Steam Greenlight with Steam Direct in 2017 (Campbell, 2017). This new system streamlined the game submission process, requiring developers to pay only a $100 fee per game, a more accessible approach compared to the voting system of Greenlight. Additionally, Valve offered a refund of this fee for games that generated over $1,000 in sales (Sarkar, 2017). This change further democratized access to the Steam platform for game developers, contributing significantly to Steam's current market dominance.

Functions

Steam's platform consists of a range of functions that cater to various aspects of digital gaming and software management. One of its core is the Steam Store, which allows users to purchase digital games by attaching a permanent software license to their Steam account (Figure 1). This model facilitates access to purchased games on any compatible device and supports gifting under certain conditions (Steampowered, 2023).

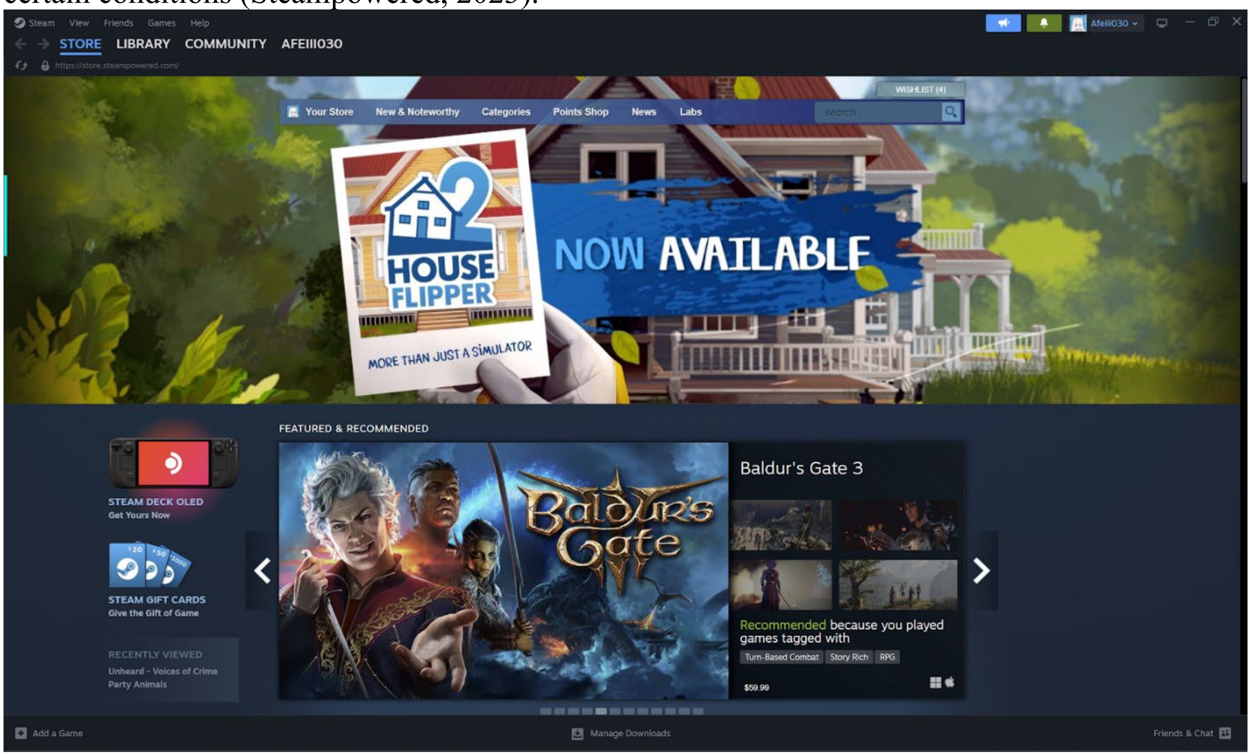

Figure 1 Screen capture of the Steam Store interface as of December 15, 2023

The platform delivers content using a proprietary protocol from an international server network, with prices varying based on the user's location (Steampowered, 2023).

In the Steam client interface, users can also find the Community section. This feature enables users to find friends, join groups, and use text chat and VoIP (Figure 2).

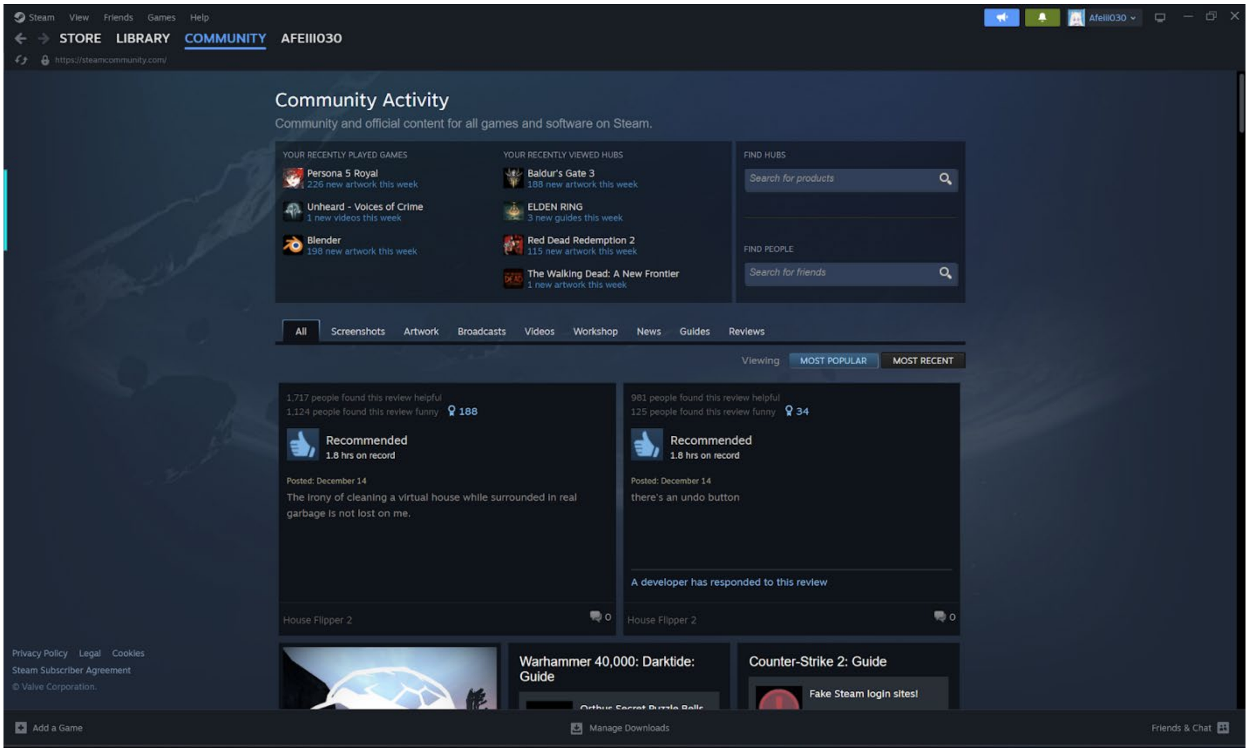

Figure 2 Screen capture of the Steam Community interface as of December 15, 2023

Additionally, the Steam Overlay allows for in-game access to these community functions, such as viewing friend lists and participating in chats, without having to leave the game. The Overlay also offers a built-in web browser and the capability to take and manage screenshots during gameplay (Yam, 2010). These features contribute to a deep community connection within Steam and introduce interactive elements that improve the overall experience of gaming. Developers can also access Steamworks Integration, a subsidiary platform that enables developers to form a partnership with Steam, granting them access to Steam Direct and an extensive suite of development tools provided by Steamworks (Steamworks, 2023).

Business Model

As of 2023, Steam operates under a dynamic tiered revenue-sharing model. This approach involves a 30% commission on sales up to $10 million, which then reduces to 25% for sales between $10 million and $50 million, and further decreases to 20% for sales exceeding $50 million (Sivakumar, 2023). The adoption of this model in 2018 was a strategic shift from Steam's previous flat 30% commission rate, a standard since the launch of Steam Direct ("Strategy First to Deliver Multiple Titles On-Line via Steam", 2005). This change was partly influenced by the emergence of the Epic Games Store, which challenged the market with a more developer-friendly 12% revenue cut (Frank, 2018).

In addition to this structural change, Steam's marketing strategy is notable for its seasonal sales events, such as the Steam Summer Sale and Steam Winter Sale. These events have been highly effective in attracting customers with discounted game prices (Brown, 2023).

Developers can also access Steamworks Integration, a subsidiary platform that enables developers to form a partnership with Steam, granting them access to Steam Direct and an extensive suite of development tools provided by Steamworks (Steamworks, 2023).

Censorship

Steam's approach to censorship has been a subject of extensive debate. Since 2018, Steam adopted a largely hands-off policy, allowing all content except for what is illegal or deemed as "straight-up trolling" (Bailey, 2018). This stance has been both lauded and criticized. Proponents praise Steam for upholding freedom of expression and resisting censorial pressures, viewing this as a win for individual choice in gaming (Jameson, 2018). However, detractors argue that this approach leads to a flood of controversial content, raising concerns about Steam's responsibility in content curation (Kan, 2018).

This policy contrast becomes particularly evident in China which also presents a unique case. Despite stringent internet censorship and regulations on foreign digital content in China, Steam has emerged as a crucial platform for Chinese gamers. Steam's appeal in China stems from its diverse game offerings that circumvent the country's strict censorship and complex approval processes for foreign games, providing a key access point to less restricted content (Messner, 2019).

-Y.L., Fall 2023

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Supercell

Supercell is a video game company headquartered in Helsinki, Finland, with offices in San Francisco, Tokyo, Seoul, and Shanghai. The company develops and publishes games for smartphones and tablets. Supercell is currently one of the most dominant players in the mobile gaming industry.

In 2018, the mobile gaming segment has the biggest share in the $138 billion video games market. Having enjoyed double digit growth since the introduction of the iPhone in 2007, mobile games continue to grow and will generate $70.3 billion in revenues in 2018. The segment possesses a 51% share of the total games revenues and the largest player base of 2.2 billion. Video games is projected to grow to be a $180.1 billion industry in 2021, with the mobile segment projected to generate 59% of revenues of the entire market (Newzoo 2018).

The Company

Founded in the summer of 2010, Supercell offers a limited but immensely successful product offering. As of December of 2018, Supercell has five games in its product offerings, all of which are made for the mobile platform. Four of the five games, Hay Day, Clash of Clans, Boom Beach, and Clash Royale have officially been released. Its fifth title, Brawl Stars, is launching in December 2018 (Webster 2018). All four of the released titles have received great success and have been in the top charts of Google Play Store and Apple Store, its two exclusive distribution channels (WIRED UK 2018). On March 7, 2016, Supercell announced that its games attract a total of over 100 million players daily and were played in every country except Tuvalu, a milestone met by few in the mobile games market (Supercell). Supercell titles are known for intuitive mechanics and gameplay for the mobile platform, and its games possess distinct and appealing graphics. They also have an emphasis on social elements and building communities.

Supercell was born on the founders' ambitious desires to create timeless, universally-played and -liked games. Its bold target can be quite contradictory when compared to the company's humble beginnings of when in its first office at Espoo, Finland, fifteen people worked in a 30-square meter office with a coffee machine (Supercell 2018).

The company's structure follows an unconventional upside-down organizational chart (Figure 1). By hiring the best personnel and the best teams, the company can garner great worldwide success with only 280 employees. This number is significantly higher for Supercell's main competitors like King and Zynga as both have well over 1500 employees (Takahashi 2017, Zynga). The structure allows the development teams, regarded as independent cells, to have most of the creative power, while the management and upper executives are responsible for the operational and marketing aspects (WIRED UK 2018). Staying true to its vision, Supercell is committed to only releasing games with high potential to the market. In order to have four successful

commercial games in its portfolio, the company has killed off 14 games that were deemed not good enough along its journey to success (Supercell 2016).

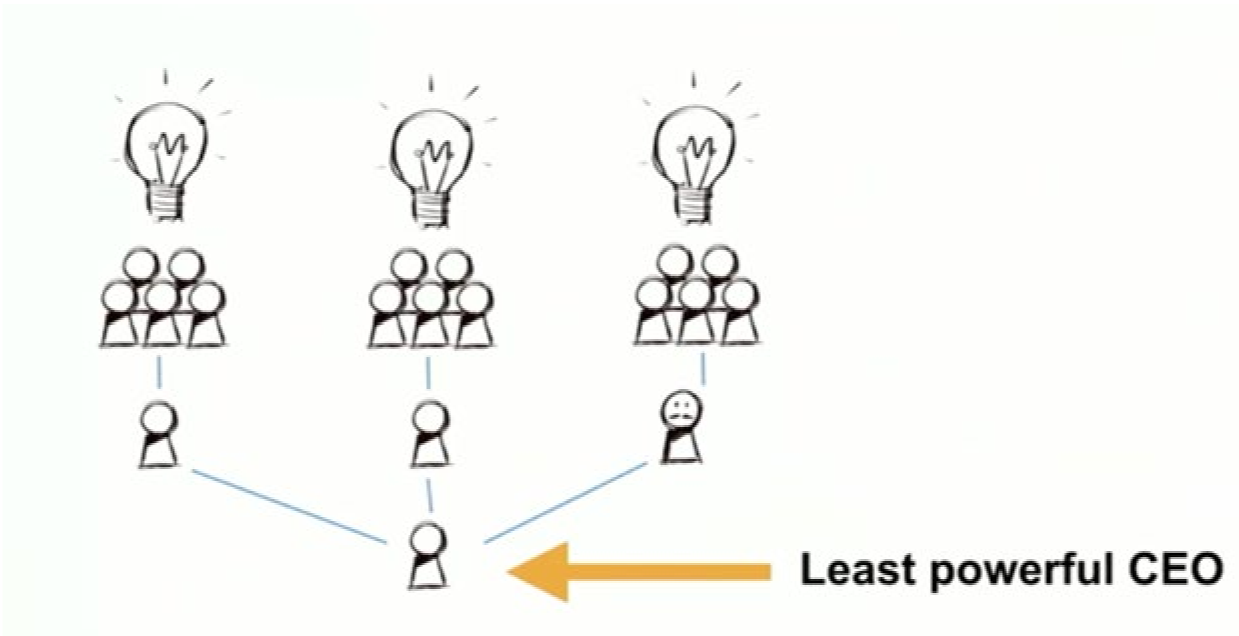

Figure 1. The Supercell Model, taken from a talk at GDC 2018 by CEO Ilkka Paananen

As a potential answer to their ambitions in the early days, Supercell looked to create cross platform gaming services. In February 2011, the company launched *Gunshine* on the then-popular desktop and web platforms, with a mobile version of the game planned for release. After realizing the shortcomings of cross platform, Supercell chose to solely focus on the mobile, the platform they believe to have the ability to carry out their vision. Gunshine was killed by the company to make way for new products (Supercell 2018).

After development and testing, Supercell launched Hay Day, its first commercially successful game, on mobile in the summer of 2012. Clash of Clans, arguably the company's most recognized title, was also released a couple months later. Both games were huge successes in terms of bringing in revenue for the company and were top 10 in revenue among mobile games worldwide and in the U.S. (Nutt 2014). The company released its third title, Boom Beach, towards the end of 2014. After a year and a half, Supercell released Clash Royale in 2016. Clash Royale continued to garner massive success like its predecessor of the Clash franchise. In the month following its release, Clash Royale became the world's top grossing game, pulling in over $80 million in revenues (Newzoo 2016). Its fifth title, Brawl Stars, has been soft launched in 2017 and 2018, and is expecting a worldwide release date of December 12, 2018 (Webster 2018).

All of Supercell games are considered freemium games, which means they are free to play and contain enhancements that players can buy with fiat currency. These in-app purchases, often

called microtransactions, generate revenues for the company. Supercell reported earnings for the 2017 fiscal year to be roughly $2 billion and a profit of $810 million (Takahashi 2018). The figures are slightly down from the numbers for 2016 when the company earned about $1 billion in profits and $2.2 billion in revenues (Verbergt 2017).

The popularity of Supercell games stretches beyond geographic borders. As an example, Clash Royale at launch topped the charts in key markets like North America and Asia Pacific. More than half of the game's revenues came from the U.S. and China market, while Europe also contributed a significant portion (Newzoo 2016). When Clash of Clans launched a Japanese version shortly after the company's partnership with Softbank, the localization effort greatly improved the game's rankings in Japan for both revenues and downloads (Graft 2013).

Past and Future

Founded by Ilkka Paananen, Mikko Kodisoja and others, Supercell was initially funded by the savings of the founders and by funding received from the Finnish government's funding agency Tekes (supercell page). In later funding rounds, the company also received investment from Accel, London Venture Partners, and more (Butcher 2010). In October of 2013, Supercell sold 51% of its shares to Japanese telecommunications giant Softbank and the subsidiary game studio Gungho Online Entertainment. The Finnish game studio retains its creative independence, and the deal serves to be a way for both sides to widen its market reach (Griffiths 2013). In June 2016, Supercell was purchased by Tencent Holdings Ltd. The Chinese Internet conglomerate bought 84.3% of the company's shares for $8.6 billion, putting Supercell's valuation at $10.2 billion (Osawa and Needleman 2016). The acquisition looks to cement Tencent's dominant position in the Chinese market, provides leverage for its growth in other markets, while providing Supercell with opportunities in new prosperous markets (Jia, Kenney, and Seppälä 2017).

-D.L., Fall 2018

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Supermassive Games

Overview

Supermassive Games is a British, independent game studio that specializes in narrative, survival horror games. Supermassive Games is best known for their AAA titles, Until Dawn (2015) The Dark Pictures Anthology (2019), and The Quarry (2022) which use choice-based gameplay to further the story and game progress. Along with shared gameplay structure, Supermassive Games' work is recognized by its signature use of motion capture and established actors (Crecente 2021).

Early History

In 2007, after parting with Electronic Arts and Psygnosis, Pete Samuels founded Supermassive Games. Based in Guildford, England, the small, British studio began producing games for Sony as a second-party developer. The studio's opening project was creating downloadable content for Sony's developed titles like LittleBigPlanet. Through 2009 to 2013, Supermassive Games continued to produce successful DLCs for the LittleBigPlanet series citing sales of £5.7 million (Loizou 2012). However, in 2015 the studio would release the unexpected hit, Until Dawn, which would change the studio's trajectory for years to come.

Until Dawn: The Unexpected Hit

Until Dawn made its debut at Gamescom in 2012 with a brief trailer and gameplay footage. Despite being introduced as a new horror game exclusively for Sony's PlayStation 3 console, Until Dawn's release would be pushed back for the later release of the PlayStation 4 instead. Returning to Gamescom two years later, Until Dawn reintroduced itself as a new game for the PlayStation 4, showcasing the use of new PlayStation 4 exclusive features like the DualShock motion sensor (Arif 2015). Following the 2014 showcase, a short demo was released to the public. This demo showcased the unique style of the game—the use of moral decisions to further game progress. The demo had three different potential endings depending on the player's decisions throughout the game (McCaffrey 2014). Finally released on August 25th 2015, the survival horror game received positive reviews such as a GameRankings score of 80% and a 79/100 score from Meteoritic. Along with positive critic reviews, it was selling extremely well. Within the first week of its release, Until Dawn was the second highest selling game in the UK, behind Gears of War: Ultimate Edition. Beyond just sales, the game was a success publicly as it became the top trending game on YouTube (Nunneley 2015). With the use of moral choices that lead to divergent, potential endings, the game was different every time based on each player. This created a large space for players to watch and play the game multiple times as Sony's President Shuhei Yoshida explains, "It's super fun to watch other people play, even after you've finished the game, because other people make different choices," (Nunneley 2015).

Elevating Motion Capture

Using the facial animation maker Cubic Motion, Supermassive Games set itself apart from competition and previous DLC works by utilizing motion capture animation for their characters. This face capture technology allows for the real performance of actors as well as their likeliness

to be at the forefront of the visual storytelling of the game. To execute this technology, first a topography of the actor's face is recorded to function as a model that can recreate the facial movements of the actors. Once a model is created, different cameras record an actor's performance, capturing drawn on marker points that aid animators in mirroring the real actions onto a digital platform. Unlike other systems of capture, Until Dawn's method allows for less disconnect of fluidity as there are fewer interpretations between 'performance captured and performance rendered' (Byles 2015). This allows for players to easily recognize the actors playing the characters in the game; further differentiating itself from competitors that use motion capture as a base for their fictional character with different features than the actors' (Byles 2015). Following the success of Until Dawn, the lifelike capture of well-known actors would grow to become a calling card for Supermassive Games.

Expansion into a Series

In 2019, Supermassive Games partnered with Bandai Namco Entertainment to release a series of narrative, choice-based survival horror games. Based on the concept of creating multiple, multiplayer, short-form horror games, The Dark Pictures Anthology was planned to consist of eight games of which four have been released: Man of Medan (2019), Little Hope (2020), House of Ashes (2021), and The Devil in Me (2022). Each game was designed to stand alone and can be played without having experience with any other Supermassive Games' developed game. While independent, the games are all connected as they are all set in the same canonical universe. Along with a shared universe, the games share themes and features like the use of choice-based decisions to further a story, the utilization of performance-based motion capture, to the overall horror based narratives and plots of the games (Murray, 2019).

Similar to Until Dawn, Man of Medan, the first release of The Dark Pictures Anthology series, focuses on the decisions made by players to further the story and determine the ending of the game. However, the mechanics of Man of Medan focused more on the concept of a moral compass. This forced players to have to choose between their heart and their head. Continuing the precise use of motion capture of Until Dawn, The Dark Pictures Anthology used the performances of well-known actors to further strengthen the narrative qualities of the games as well as recognizability and familiarity. Visually similar to Supermassive Games' previous title, The Dark Pictures Anthology also carries similar plot devices and overall horror-based themes as each story is inspired by a mixture of mythology and real historical horror (Crecente, 2021).

A Blend of Game and Film

The Quarry, released by Supermassive Games in 2022, is a blend of features of the studio's previous titles with long horror narrative elements from Until Dawn to the multiplayer functionality of The Dark Pictures Anthology. The interactive horror game, described as a 'spiritual sequel' to Until Dawn by director Will Byles, follows a similar plot to that of Until Dawn as well as similar gameplay features like choice based decisions that impact the ending (Hornshaw 2022). Despite a similar framework of gameplay, The Quarry differs from Until Dawn as it relies more heavily on the pace of the narrative. This differing quality of the game is due to its heavy inspiration of 1980's slasher films with familiar horror film tropes found through-out the game (Wilde, 2022). Constructed on the foundation of a horror film, Supermassive Games developed The Quarry to be more a narrative based experience, similar to a film, rather than a more interactive experience like Until Dawn. To strengthen the film-like quality of the game, The Quarry brought a large list of Hollywood actors into the world of the

game through the complex motion capture technology Supermassive Games had been harnessing for years. The use of recognizable actors furthers the feeling of a classic horror film while continuing the digital signature of Supermassive narrative horror games. While noted as the sequel to Until Dawn, The Quarry also contains elements of The Dark Pictures Anthology. Upon release, The Quarry introduced a multiplayer function similar to that of The Dark Pictures Anthology where different players can control specific characters' decisions in the game (Hornshaw, 2022). Along with a matching multiplayer function, The Quarry also carries similar moral compass based decisions that influence a player's choice between head and heart. Fusing signature choice-based gameplay elements with classic horror film motifs, Supermassive Games' The Quarry sits on a foundation of the experimental game design of Until Dawn and The Dark Pictures Anthology.

- A.K. Summer 2022

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Sync Licensing

Overview

Synchronization (sync) licensing refers to the legal process by which copyright owners "authorize the use of a musical composition in timed relation with visual images," while "a master use license is required to use a specific sound recording" (U.S. Copyright Office 2022). Because copyright law treats the musical composition and the sound recording as distinct works, game developers must secure permissions from both the music publisher and the record label before incorporating an existing song into a video game.
In recent years, sync licensing has become an important link between the music and gaming industries. It helps developers choose songs that enhance a game's atmosphere, and emotion, while giving musicians new ways to reach players around the world.

Evolution of Sync Licensing in Video Games

The use of licensed music in video games began with early titles such as *Journey Escape (1982)* and *Michael Jackson's Moonwalker* (1990) which paired their popular songs with gameplay (Ombler 2021; Aslinger 2009). A major shift occurred in the mid-1990s when developers began using music to align games with the on-going trends. Sony's *Wipeout* (1995) featured electronic artists like Leftfield, Orbital, and The Chemical Brothers, immersing players in the club culture of the time. Its soundtrack was released separately on CD and vinyl, marking one of the first cases where a game's music achieved commercial success beyond the screen (Ombler 2021). These games did not yet establish a consistent licensing model, but they marked the beginning of a pattern.

At the turn of the century, collaboration between the recording and gaming industries deepened. Facing declining CD sales, record labels began to see video games as powerful new platforms for promotion. Aslinger (2009) described this shift as record companies realizing that "video games are the new radio." Games like *Tony Hawk's Pro Skater* (1999) and *Grand Theft Auto: Vice City* (2002) captured the sound and energy of the youth, making their licensed soundtracks just as iconic as their gameplay. Music-driven titles like *Guitar Hero* (2005) illustrated the sheer scale of licensing arrangements: reporting later highlighted that in 2008, Aerosmith made more money from their *Guitar Hero* title than from any of their albums (Ombler 2018).

In the 2010s and broadly now, sync licensing has evolved into richer collaborations between game developers and artists. *Fortnite* pioneered virtual concerts (the Marshmello concert in 2019) and continues to stage large in-game performances that attract millions of viewers. Major publishers such as EA and Sony now employ in-house teams of music supervisors and A&R executives who work closely with labels to select music that fits a game's creative direction. Steve Schnur, President of Music at EA Games asserted his belief that for artists, video games could become the next MTV or commercial radio. In essence, Shnurr claims that any given song

that is placed on *FIFA*, could reach “nearly one billion” listens, equivalent to 800,000 album sales (Ombler 2018; UCAYA 2020).

Mechanics of Sync Licensing

Sync licensing for video games involves a multi-step process governed by copyright law. The U.S. Copyright Office clarifies that while the synchronization license covers the composition, a master use license is needed for the use of the original recording. These licenses are negotiated independently and may involve different rights holders for the same song.

After labels and publishers get approval from their artists or writers for a sync use, music licensors step in to negotiate fees and terms with rights holders. Their role sits in the middle of the workflow, handling the legal and financial permissions that must be secured before a track can move forward in the process (Elliott 2022).

In addition to publishers and labels, performance rights organizations (PROs) may also be involved when a game use triggers public-performance rights, for example, in trailers, or broadcasts (Elliott 2022). Global releases further complicate licensing because rights often differ by territory, and each territory may require separate negotiations or approvals before the music can legally appear in the game (Elliott 2022; Packwood 2025).

Models of Sync Licensing in Games

Sync licensing in video games operates through several models that reflect how music is identified, and cleared within games. The most common approach is to license individual songs on a case-by-case basis, since each track requires separate synchronization and master-use permissions. Cromwell-Charron notes that this process can involve “multiple rounds of license negotiations” and coordination across several entities, making it resource-intensive even for large studios (Elliott 2022).

A second model used by smaller studios is pre-cleared catalog licensing, where a single entity controls both the composition and the recording. This reduces multi-party negotiations. Cromwell-Charron notes that during the pandemic many labels expanded upon this model “at interesting fees and with guaranteed indemnification” (Elliott 2022). This shift made licensed music more accessible to developers who lack the resources to pursue individual agreements. Some publishers negotiate for perpetual rights when they want music to remain in a game without future renewals. Elliott (2022) reports that perpetual licenses are possible when publishers can demonstrate long-term value to artists. Gavin Johnson (Monstercat), and Lori Cromwell-Charron (EA) note that perpetual rights can be negotiated though they remain costly, variable across rights holders, and often require significant leverage or specialized expertise (Elliott 2022).

A newer approach gaining traction is the use of platform-level licensing. New companies like Styngr (2020), negotiate large-scale agreements with major and independent labels and handles the legal and technical work of mapping label and publishing rights “by geography,” ensuring users hear only the music they are authorized to access it (Packwood 2025).

Sync Licensing Today

Today, sync licensing in games takes place in a highly fragmented environment. A single song can involve several labels, publishers, and individual writers, and all of them must approve the use before it can move forward, making the process slow and unpredictable (Packwood 2025). The rise of online games and regular updates have added extra steps to music licensing. Developers now have to get permission to both, to use the song in the game and to distribute it online, since copyright treats those as different rights that require separate licenses (Elliott 2022). These complications have led to well-known cases where games were temporarily removed from digital storefronts when music rights expired, for example, *Alan Walker* (2010) and *Grand Theft Auto: Vice City* (2002) each of which faced delisting or track removal due to lapsed or withdrawn music licenses (Elliott 2022).

To address these issues, new companies have emerged. California-based company Styngr, founded in 2020, negotiates blanket agreements with major and independent labels, plans recording rights to publishing rights across regions, and manages reporting and royalties on behalf of developers (Packwood 2025).

Despite these new approaches, the fundamental licensing framework still reflects older media models, and as Cromwell-Charron of EA explains, sync licensing in video games remains a “web of negotiation, approval, and bureaucracy” (Elliott 2022). Still, licensed music continues to expand within games as developers experiment with in-game radio, and virtual events. Industry reporting support this trend, as it identifies video games as one of the fastest-growing segments of the sync licensing sector, driven by the use of licensed music in soundtracks, trailers, promotional campaigns, and live-service features (Dataintelo 2025).

-S.G., Fall 2025

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Tamagotchi

Overview

Tamagotchi, a blend of Japanese words of egg (*tamago*) and watch (*uotchi*), is an egg-shaped, pocket-size digital device to raise pixel pets. Yokoi Akihiro from WiZ, a Japanese toy corporation, designed the product, and Aki Maita from Bandai, a Japanese multinational toy manufacturer, further engineered it. Bandai launched Tamagotchi in Japan on November 23, 1996, and distributed it globally in May 1997. At the peak of its popularity in the late 1990s, the electronic device recorded 40 million in global sales and accounted for 20% of the Bandai's total sales (Coventry 2004). Tamagotchi was called "the world's most popular toy" and was titled a "current craze" (Allison 2006). Over the years, it has become one Japanese intellectual property (IP) and expanded the characters and gameplay beyond games into animations, PC games, and mobile games.

History and Development

Akihiro introduced the game concept in June 1995. He got inspiration from a television commercial that showed a boy who wished to carry his pet turtle on a trip, but his mother rejected the idea. Akihiro pursued the wish and envisioned the Tamagotchi as a portable pet. The prototype was initially invented as a wristwatch. Due to cost consideration, Tamagotchi was attached with a keychain as a portable nurturing toy that primarily targets girls. In 1996, Bandai, an economically struggling toy company, released the product line: Tamagotchi. Promoted with its multiple functions simultaneously as a pet, game, and fashion accessory, Tamagotchi was a must-have item for underage, even young adults. The high demand created a shortage in Japan after its immediate launch in 1996. Bandai placed extra 3 million orders of production a month to satisfy stunning market demand (Rosen 2021). In May 1997, Bandai opened the market to American consumers and showed a peak in its popularity. With fifteen pieces sold per second in North America, the surging demand generated over $160 million in revenue in more than eighty countries. Tamagotchi saved Bandai from the low toy sales to a Japanese export-centered toy company by taking five months after its debut in the United States (Allison 2006).

In 1998, Tamagotchi sales dropped by almost 80 percent. Consumers were discouraged by the pet's short lifespan and distraction from playing with the device. The social pressure in Japan triggered Bandai to move to the global market. However, counterfeit Tamagotchis were already prevalent overseas, severely hitting the sales of authentic products. Until 2004, Bandai upgraded the second-generation Tamagotchi Connection with infrared emission and enhanced the interactivity of the device. Users can connect devices to make friendships with other users, send presents, and have a baby pet. After upgrading the product line, Tamagotchi's sales recovered, reaching sales of 83.73 million in March 2021 (Anna 2022).

Gameplay and Game Design

Tamagotchi is a short life cycle product with an average 12 days lifespan and has a unique life cycle: birth, growth, and death. The device utilizes a "continual play" feature that requires users to devote constantly to the game and allows them to save their game progress even when they

turn off their devices. Tamagotchi aims to help users build responsibility to take care of the pet, gain accomplishment to raise their pet from egg stage to adult stage (Figure 1), and create a sense of loss when the digital pet was dead. Tamagotchi simulates the pet feeding process and releases intermittent demands for more interactions and emotional responses from users. There are three bottoms representing the select (A), decide (B), and cancel (C) functions at the bottom of the screen. It enables users to feed, clean, game, and treat pets to meet their constant needs and desires. The amount of caretaking will increase "intimacy" in the game and affect its growth traits in several possible forms (Figure 2). Positive traits, including physical appearance and characteristics (intelligence, alertness, cheerfulness, and independence), can establish a more interactive and continuous relationship (Allison 2006).

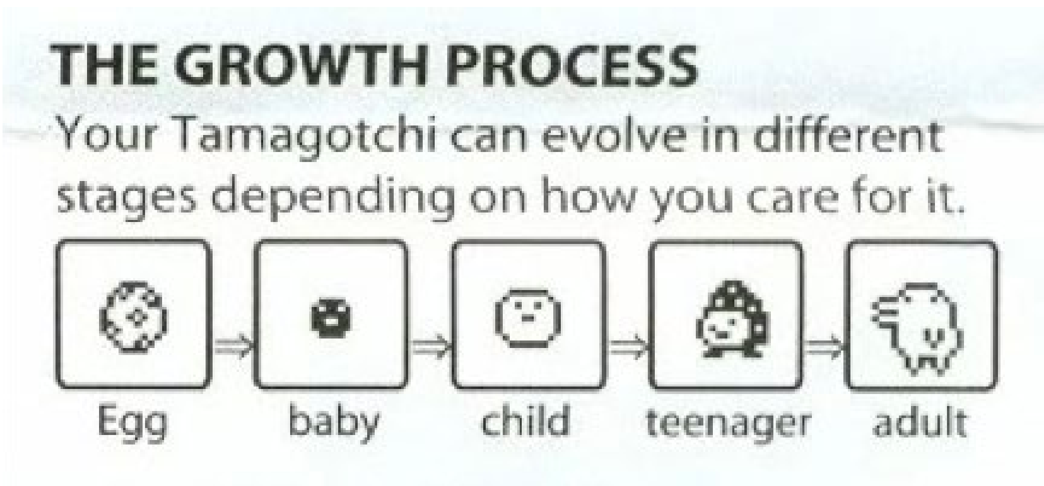

Figure 1: The life cycle from Tamagotchi Wiki, [Tamagotchi Connection Version 1] instruction manual.

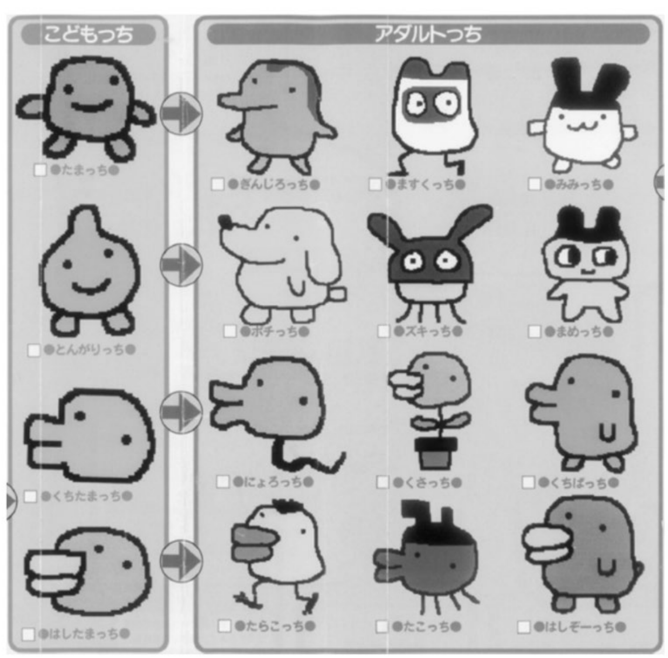

Figure 2: The growth chart from *Millennial Monsters, Japanese Toys and the Global Imagination* by Anne Allison

Collectible Value

Tamagotchi has game players and device collectors. Certain Tamagotchi devices were sold and traded on the platform, such as TamaTalk and Tama-Zone, and fetched thousands of dollars (Ho 2020). According to Tamagotchi Topsites, TamaTalk, a digital community forum with over 90,000 registered members, received an average monthly 3.3 million page views (Bereznak 2017). The now-defunct forum, Tama-Zone forums, generated more than 302,000 Tamagotchi posts between 2006 and 2018 (Ho 2020). The largest online community provided a platform for fans to look for customized devices and collect limited Tamagotchi models.

Tama-artists, people who love to customize the Tamagotchi shells with complex and stylish painted artwork, sell and exchange their unique customized Tamagotchi devices on the forum. Besides, collectors placed “bounties” for rare models in the collector circles. A normal Tamagotchi is around $20 on Amazon. Some models, such as Tamagotchi Conan ID, a limited edition of 100 as a giveaway in Shōnen Sunday Manga Magazine issue 3000th, had a value up to US$3,500 on the auction site. The fan community also hatched limited themes for popular models to invest in. For example, Divilgotchis, a Japan-only Halloween version, had a collectible value of around US$300 (Ho 2020).

The collection process also generates problems. Since collectors relied on auctions and other unofficial sellers from the interactive community, some forums were used to discuss and reveal potential scam artists selling fake merchandise (Bereznak 2017).

Beyond the Game

The Tamagotchi series is an in-house Bandai IP featuring a total of 58 Tamagotchi characters. The portable device can readily find partners with other IP franchises to enrich the product line of peripheral derivatives for these trendy IPs and stay relevant with the latest trend. In the heyday, Tamagotchi collaborated with manga character Doraemon, movie character Godzilla, and Japanese actress Tamao Nakamura and released licensed Tamagotchi models in 1998 (Tamagotchi Wiki). Bandai also launched a collaborative Tamagotchi device featuring the latest IPs such as Hello Kitty, Demon Slayer, Star Wars, Pokemon, Pacman, etc. Beyond playing as a portable device, Bandai utilized IP and launched derivative products such as animation, PC games, and mobile apps to gain popularity and revenue.

In 1997, Tamagotchi created a 27 episodes anime series *TV de Hakken!! Tamagotchi.* Each episode is around 1 minute and focuses on the adventure of one or two classic Tamagotchi characters. From 12th October 2009 to 3rd September 2012, OLM, a Japanese animation and film studio, aired the animation *Tamagotchi!* For seven seasons based on more of Tamagotchi’s characters. The series launching gained Japanese publisher Kadokawa Shoten’s adaption of three anime sequels, two manga adaptations, and ten light novel adaptations (DBpedia 2022).

In 1996 and 1997, Bandai revived its franchise with Tamagotchi Connection in the mid-2000s. The series connected with computer software and website and introduced an interactive website game called *TamaTown*. In this PC game, players can synchronize their Tamagotchi Connection device Version 3, 4, and 4.5 to the site to explore different locations with various mini-games, learn new skills to find “jobs,” and earn prizes for their Tamagotchi characters. *TamaTown* was

shut down on February 6th, 2013, because the website feature was no longer available to Tamagotchi Connection.

In the new era, Tamagotchi has shifted from a gadget to a modern medium for the new generation of Tamagotchi fans. On Tamagotchi's 21st anniversary, a free iOS and Android mobile game *My Tamagotchi Forever* was announced and was officially released worldwide on March 15, 2018. Bandai keeps the original Tamagotchi gameplay but replaces the pixelated animals with full-color 3D graphics and features. It is the first AR (Augmented Reality) enabled Tamagotchi game that encourages players to explore the TamaTown by using AR. Until March 2022, *My Tamagotchi Forever* reached 200k downloads on iTunes and generated a $30K revenue worldwide (Sensor Tower 2022).

-Y.Y., Spring 2022

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Telltale Games

Overview

Telltale Games, originally founded in July 2004, is an American independent video game development and publishing company based in Malibu, California. Self-described as a "digital-first" developer, the company has developed and published a catalog of 44 games across computer (Steam, MacOS, GOG, Epic Games Store), mobile (Android, iOS), and console (Xbox family, Playstation family, Nintendo Switch) platforms in a digital download only format. This approach has allowed for the most fan-favorite games, such as "The Walking Dead," "Tales From the Borderlands," and "The Wolf Among Us" to be re-released across multiple platform generations. Ports of their games to the Playstation 5 and Xbox Series X are planned for future release (Telltale Games 2021). Telltale Games have been renowned for pioneering episodic storytelling in games and revitalizing the adventure game genre which hadn't seen massive popularity since the 1990s (Favis 2019).

Founding and Business Style

Telltale Games was founded by former LucasArts developers Kevin Bruner, Dan Connors, and Troy Molander. The trio brought with them over 50 combined years of experience in producing point-and-click, "death-free" adventure games such as "The Secret of Monkey Island" and "Sam and Max: Hit the Road" (Williams 2018). By the late 90s, LucasArts itself would begin to produce–and almost exclusively rely on– licensed, action-adventure games based on the *Star Wars* and *Indiana Jones* franchises. The rise in the popularity of these blockbuster-type, games, which were a departure from the company's previous output, led to the discontinuation of series such as "Sam and Max" (Butts 2004). Games in that genre were not viewed as a worthwhile investment. Such attitudes motivated the executive decision by then-president of LucasArts Jim Ward to cut 260 of the original 450 employees so that the company could focus more on producing the *Star Wars* content which the market demanded (Williams 2018). The trio of Bruner, Connors, and Molander was ousted as a part of these cuts, thus leading them to found Telltale Games in 2004.

The beginnings of Telltale Games mirrored its founders' early days at LucasArts. Having expressed a desire to return to their roots of adventure game development, their initial goal was to revamp their well-beloved "Sam and Max" series (Favis 2019). Taking heed of lessons learned during the downsizing of LucasArts, Telltale Games would pair their commitment to their original intellectual property (IP) with a commitment to crafting brand-new immersive experiences based on licensed IP. A new approach to development and storytelling would serve as the link between the two.

Influenced by episodic film and television, Telltale released “seasons” of “Sam and Max” one at a time. By purchasing a season, players would have access to five “episodes” released monthly. Though each season delivered a complete gameplay experience, the final episode would leave players on a cliffhanger. This style of release kept players invested and motivated them to purchase concurrent seasons (Thier 2013). While Telltale was developing “Sam and Max,” digital distribution was becoming more normalized in the video game industry. Connors decided to embrace this new wave by distributing the works of Telltale Games exclusively on digital platforms such as Steam and the Xbox Live Marketplace (Williams 2018). This would make it much simpler for customers to pick up the story where they left off. “Sam and Max” served as proof of the viability of this business model.

Games Catalogue

As a small company, Telltale Games did not have to focus on selling many millions of copies to keep the company afloat. Instead, their games were developed for a small, devoted fanbase so that costs would remain relatively low and that devs could focus on telling the stories they want to tell (Cifaldi 2006). This dedication to narrative-driven game development would persist as the company ventured into developing licensed video games.

No matter the license, be it the light-hearted, whimsical “Wallace and Grommit” (2008) or the dark, gritty “The Walking Dead” (2012), all Telltale games were built around the same simple, easily accessible mechanics. For example, “The Walking Dead” plays out in cutscenes rendered in real time, as if players are watching an episode of the TV series the game is adapted from. The story is told from the perspective of one main character which the player has control over. At key moments in the story, players are brought to a junction wherein they must choose between 2-4 dialogue options in order to progress the story. According to the in-game instructions, dialogue choices will impact the overall trajectory of the story. There are multiple endings to the story which can be unlocked through multiple playthroughs (Telltale Games 2021). The simple mechanics of selecting dialogue make the complex, branching storylines more accessible and engrossing to players, making them feel as though they are crafting the story themselves (Stang 2019). Moreover, story progress in, say, season one of “The Walking Dead” would be carried over into season two and so on until the end of the series. Thus, fans of the series could craft their own multi-game saga from the choices they make from moment to moment. This has been labeled by video game critics as “the Telltale Formula” (Gardner 2019).

“The Walking Dead” would prove to be the company’s most critically and financially successful game. The first season alone reportedly generated $40 million dollars in revenue in its first year. In that time, it received several awards and nominations from the British Academy Video Games Awards, the Spike Video Games Awards, and many video games publications (Thier 2013).

Closure, Restructuring, and Future of Telltale Games

The success of "The Walking Dead" ushered in a new era of licensing massively popular IPs. That game's success garnered Telltale Games the prestige and finances necessary to license IPs like "Game of Thrones," "Batman," "The Wolf Among Us" and "Minecraft" in order to give them the "Telltale spin" (Williams 2018). However, as Telltale acquired more IPs, their staff were spread more thinly. Development crunch became the norm in this era of Telltale. Veteran developers at Telltale spoke out anonymously against the toxic working conditions which motivated them to leave the company (Farokhmanesh 2018). Naturally, the departure of these experienced developers led to an overall drop in the quality of Telltale Games' output. Games such as "Batman: The Telltale Series" and "Game of Thrones" failed to break even and were considered critical flops. Additionally, critics and fans were tired of the episodic release format (Williams 2018).

As was the case with LucasArts, these issues reached their breaking point in 2018, when 250 employees were laid off without severance. Only a small team of 25 developers remained to finish projects such as the now cancelled Netflix series adaptation of their game "Minecraft: Story Mode" (Farokhmanesh 2018). In 2019, Telltale Games was acquired by LCG Entertainment. LCG has revived Telltale by acquiring its properties, and directing development efforts toward Telltale's original IPs and the remaining licenses to "Batman" and "The Wolf Among Us". When asked how Telltale will avoid repeating mistakes, current CEO Jamie Ottilie expressed a need to follow the example of new media platforms such as Netflix to provide players with the same binge watching experience they can find in their favorite shows (Campbell 2019). Ultimately, Telltale's ability to survive in the 2020s will be determined by its ability to adapt to a new audience with new demands.

-C.A.C., Fall 2021

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TT Games

Overview

TT Games, also known as TT Games Studios Limited, is a console and PC video game developer based in Knutsford, England. Founded in 1989 as Traveller's Tales, the company has been a subsidiary of Warner Bros. Games since 2007 (TT Games Studios, n.d.). TT is primarily known for their LEGO video game series, which comprises puzzle-platformer titles across numerous franchises, from LEGO Star Wars and LEGO DC Comics to LEGO Pixar and LEGO Jurassic World. Debuting in 2005 with *LEGO Star Wars: The Video Game*, the series has sold over 200 million copies and generated $2 billion in revenue (Batchelor 2019). TT is currently developing *LEGO Batman: Legacy of the Dark Knight*, set to release on Xbox Series S/X, PlayStation 5, Switch 2, and PC in 2026 (Wales 2025).

Early History

Traveller's Tales was co-founded by Jon Burton and Andy Ingram in 1989, when Burton was a university student and Ingram was a freelance graphic artist. The pair collaborated to create the platformer *Leander* for the Commodore Amiga, which released in 1991 as Traveller's Tales' first title (Wallis 2006). Although the company created a few more games using original IP—including *Puggsy* (1993) and *Haven: Call of the King* (2002)—they focused primarily on developing games based on licensed properties. Between 1991 and 2005, they released fifteen such games, most notably *Toy Story* (1995), *Sonic 3D Blast* (1996) and *Crash Twinsanity* (2004) (IGDB, n.d.). While these games had creative ideas, many of them ended up with middling reception for various reasons, whether it was time crunch, inexperience, technical limitations, or differences in creative vision with publishers (Wallis 2006).

Giant Interactive Merger

In March 2005, Traveller's Tales released *LEGO Star Wars: The Video Game* for GameCube, Game Boy Advance, PlayStation 2, Xbox, and PC/Mac alongside publisher Giant Interactive (IGDB, n.d.). This was the studio's first major breakthrough—the game sold 3.3 million copies by March 2006 (LucasArts 2006) and received positive reviews, with The Sydney Morning Herald writing, "This LEGO retelling of the prequels is both a loving tribute and an amusing parody" (Hill 2005). Encouraged by *LEGO Star Wars'* successful release and the potential of Giant Interactive's LEGO video game exclusivity license (Wallis 2006), Traveller's Tales acquired the company for an undisclosed amount, resulting in the formation of TT Games (Maragos 2005).

After the merger, the newly-minted TT Games immediately started work on a sequel, titled *Lego Star Wars II: The Original Trilogy*. The game released in September 2006 for sixth-generation consoles and PC/Mac (IGDB, n.d.) and performed even better than its predecessor, selling 1.1 million units in its first week (Surette 2006) and winning a BAFTA award for Best Gameplay (Howson 2006).

Acquisition by Warner Bros.

Following the success of the LEGO Star Wars games, TT Games was acquired by Warner Bros. in November 2007. WB paid £100 million ($210 million) for Jon Burton's 80% share in TT Games (Kietzmann 2007) and the company subsequently became a subsidiary of Warner Bros. Interactive Entertainment (now Warner Bros. Games).

TT Games maintained its existing agreement with LucasArts to create the *LEGO Star Wars* and *Indiana Jones* games (Martin 2007), and could now also develop games based on the diverse IP under the WB umbrella, including DC Comics, Harry Potter, Lord of the Rings, etc. (Allen 2007). Warner continued to take a "fairly hands-off approach" to the external licenses TT worked with in the future, allowing the developer to create titles based on non-WB properties like *Rock Band, Ninjago*, and *Marvel* (Cork 2013, 63).

LEGO Games

The LEGO games emerged as TT Games' signature series, with the company focusing exclusively on these titles following the June 2008 release of *LEGO Indiana Jones: The Original Adventures* (IGDB, n.d.). In each game, 1-2 players explore a series of levels (and an open world in the series' later installments) while solving puzzles and defeating enemies. Throughout the levels and open world, they'll build and destroy LEGO objects to help them progress. Targeted primarily at families and younger audiences, LEGO games are lauded for their charm and accessibility. They feature a non-punishing approach to challenge that encourages experimentation, and have "a much greater emphasis on positive reinforcement than was traditional" (Helgeson 2011). The games can be played solo or in local split-screen, and co-op play is a key component of their experience; the gameplay loop relies on players combining the diverse abilities of their characters in both puzzles and combat (Cork 2013, 57).

While LEGO games are all built on the same general platforming formula, new mechanics are added to each one to suit its particular IP; *LEGO Star Wars* games are designed around using Force powers or blasters, whereas the *LEGO Jurassic World* game centers characters who can dig up dinosaur bones or hack computer terminals.

TT Games also entered the toys-to-life space with *LEGO Dimensions,* which released for Wii U, Xbox 360/One, and PlayStation 3/4 in 2015 (IGDB, n.d.). Alongside the game itself, *Dimensions'* "starter pack" included a LEGO playset called the Gateway—which doubled as the game's NFC platform—and three playable figures **(**Pearson 2015). Over the next two years, LEGO released over 60 playsets from 30 franchises, featuring figures or builds that could be scanned into *Dimensions* (BrickLink, n.d.).

Dimensions launched to strong reception, with critics especially praising how the game integrated the physical LEGO into its gameplay—unlike its toys-to-life competitors, whose figures had no function after being scanned into the game. However, critics also noted that *Dimensions* was "one of the most expensive propositions in gaming." The starter pack cost $100, with individual expansions ranging from $15-$30 (Handrahan 2015). This ultimately proved unsustainable; LEGO products have extremely high manufacturing costs, and *Dimensions* packs retailed at low profit margins to remain competitive. Anytime poor sales necessitated retail

discounts, those margins were eliminated entirely. LEGO and TT Games were eventually forced to drop support for *Dimensions* by 2017 (Phillips 2017).

Working Conditions Controversy

A January 2022 Polygon report revealed allegations of poor working conditions made anonymously by 30 current and former TT Games employees (Yarwood 2022a). Employees were reportedly coerced into working frequent overtime periods; leadership treated crunch like a "production tool" rather than an emergency protocol. They also faced regular blackmail and verbal abuse from management, with QA and other junior teams being prohibited from speaking privately with HR. Female staff faced sexual harassment and workplace discrimination. There was an overt lack of communication and transparency around projects, employees often felt micromanaged, and nepotism ran rampant at higher levels. Employees alleged that mistreatment dated back to the founding days of Traveller's Tales, but that many issues were exacerbated during the development of *LEGO Star Wars: The Skywalker Saga* (2022). Despite pushback from programmers, management insisted on using the proprietary NTT game engine instead of Unreal Engine to save licensing fees. NTT was slow, crash-prone and arduous to use, which severely hindered all stages of development. All these factors contributed to an extremely toxic work culture, leading to the exodus of at least 40 TT Games employees since 2021 (Yarwood 2022a).

Recent reporting indicates that conditions at TT Games are slowly improving (Yarwood 2022b). However, due to the allegations, among other factors, LEGO decided not to renew TT's exclusivity license in 2022 (Robinson 2022). Epic Games, 2K, Sony and others have since published various LEGO titles, creating newfound competition for TT Games.

- M.M, Fall 2025

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Twitch

Overview

Twitch is a popular live-streaming platform which was designed to accommodate and centers largely around people playing video games. It is a subsidiary of Twitch Interactive, which was purchased by Amazon in 2014.

Applications

The central mechanic of Twitch is a live-stream, where a user can broadcast live media content of their choice. This is typically some mix of a video game that the user is playing, a camera feed, and audio commentary, referred to as a stream. Users who broadcast, by this measure, are called streamers. While the website was developed with video games in mind and remains largely video game-centric, the platform is versatile and hosts a varied community of artists, educators, and “influencers,” as well as a host of other niche interests.

Live-streaming platforms are unique in the way that they allow content consumers to engage with content creators in real time. Viewers can participate and engage with the streamer via a contemporaneous live chat feature, which within the Twitch community has developed an intricate lexicon of icons known as emotes, each with a specific connotation and meaning (Alexander, 2018). There is an option to “follow” a streamer in order to receive notifications whenever the streamer is live. Viewers can create “clips,” which preserve up to 60 seconds of video from the stream indefinitely. Streams are archived for two weeks after the fact; these archived streams are known as VODs, or “video on demand.”

Streamers are supported through paid subscriptions, “Cheers,” or third-party donation services such as Paypal. Subscriptions can come in three tiers, which cost from $5 to $25, of which Twitch receives a significant portion. A streamer can only receive subscriptions once they’ve reached a certain viewing threshold and reach a status known as “Twitch Affiliate.” Larger streamers will be reviewed for status as a “Twitch Partner,” where they agree to stream exclusively with Twitch for a larger cut of their stream’s profits. Cheers are funded via Twitch’s own currency, “Bits,” which can be purchased via Amazon or earned through watching ads. For a streamer, one bit received is roughly equivalent to one cent earned. Partners and affiliates are also given privileges, such as the ability to create unique emotes for their subscribers. The number of emotes available scales from one for entry-level affiliates to fifty for the most popular streamers.

In 2016, Twitch launched Twitch Prime, where Amazon Prime users could link their account to Twitch and receive benefits in a type of cross-promotion. One such benefit was a free monthly subscription to a streamer of the user’s choice (Grant, 2016). Another benefit was ad-free

viewing, which was recently rescinded, to some blowback. The platform justified this as offering more options for revenue to streamers, as it plans on expanding the option to run ads to Affiliates as well as Partners. Ad-free viewing is still offered for Twitch's alternative monthly subscription service, Twitch Turbo (Twitch, 2018). In 2018 Twitch also released Community-Gifted Subs, where up to one hundred subscriptions can be donated to a streamer at a time (Grayson and D'Anastasio, 2018). This expansion of potential revenue and emphasis on profit for the streamer comes at a time where Twitch profits have never been higher, but its market domination is starting to be contested.

Twitch Today

Twitch remains the top live-streaming platform, beating out Google's competitive streaming service YouTube Gaming as well as new entries to the field such as Microsoft's Mixer. In the third quarter of 2018 the average number of active Twitch streamers grew 23%, from 1.37 to 1.63 million. YouTube gaming's average number of active streamers was less than half of that, at 623 thousand (May, 2018). As of this article, Twitch ranks as the world's most popular gaming-related website. It is the 13th most popular website in the US, and the 31st most visited website in the world (Alexa, 2018). Twitch's userbase is largely male and millennial, with 81.5% of its users being male and 55% between the ages of 18 and 34 (Twitch Advertising, 2017).

The Battle Royale third-person shooter *Fortnite* is currently the most popular game on Twitch, constituting 14% of Twitch's overall viewership and streamed by 22% of Twitch's channels at the time of this entry (TwitchTracker, 2018). The current record for peak concurrent viewers on a single broadcast was set in July of 2018 by Tyler Blevins, screenname Ninja, during a four-hour *Fortnite* stream where he was joined by the rapper Drake (Spangler). At its peak, the stream had approximately 628,000 live views. Blevins has also set the record for highest ever subscriber and follower counts, peaking at 180,000 subscribers and with 12.5 million followers as of this entry (Tassi, 2018).

History

Twitch originated from Justin.tv, which was a general-purpose livestreaming platform. Justin.tv itself began in 2007 with one man – Justin Kan – who wanted to broadcast his life, every hour of every day. He did so with a webcam strapped to his head and connected to a laptop in his backpack. The idea of "lifecasting" was posited as the new era of reality shows, and soon Justin.tv became a site for anybody to broadcast, so long as they were in line with the site's terms of service (Sydell, 2007). This was a very early iteration of the live-stream and chat model. In contrast to Kan's original intentions for site, it became increasingly popular for video game livestreams; in 2011 the creators of Justin.tv launched Twitch as a dedicated video-game live-streaming platform, naming it after the concept of "twitch gaming," which is an instantaneous, reaction-based style of gameplay (DiPietro, 2011). Within a year, Twitch had 17 million monthly viewers (Ewalt, 2013).

Over the course of 2014, Twitch reached 100 million viewers, the website Justin.tv was shut down, and its parent company rebranded to Twitch Interactive, so that they might better "focus their resources" on the more popular site (Brightman 2015; Musil 2014). On September 14th of that year, Twitch Interactive was purchased by Amazon for $970 million. This came as something of a surprise, as there had been rumors circulating of Google acquiring Twitch with a preliminary deal of $1 billion. Antitrust concerns were cited as a potential reason for the deal falling through, as Google had recently acquired the dominant video-hosting platform YouTube, though those rumors were never confirmed as both parties declined to comment (Mac 2014). Google launched YouTube Gaming as a competing service in 2015.

-A.B., Fall 2018

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Ubisoft Entertainment SA

Overview

Ubisoft Entertainment is a French computer and videogame developer and publisher with headquarters in Montreuil-sous-Bois, France. It was founded in 1986 by Yves Guillemot and his four brothers. To this day, Yves still operates as the company chairman and CEO (Bertz 2011). With its collection of 35 game studios, both founded by them and acquired for others, Ubisoft's collection of titles over the years includes *Rayman, Assassin's Creed,* the *Tom Clancy* series, *Farcry,* and *Just Dance*. With an ever growing set of games spanning all genres in the video game industry, Ubisoft offers the player a wide ranging choice of games to enjoy on console, PC, and mobile.

Published Games

Perhaps Ubisoft's most prestigious intellectual property, *Assassin's Creed*, first released back in 2007 for the Xbox 360 and PlayStation 3 consoles, and was later ported over to Microsoft Windows in April 2008 (Staff 2015). As of September of 2019, the franchise has sold over 140 million copies spanning over 11 titles, the most recent being *Assassin's Creed: Odyssey,* which released back in October of 2018 (Tyrer 2019). Though the franchise still retains its status amongst the best RPG-simulator games on the market, the lack of a release in 2019 is marked by the diminishing changes in the game's core mechanics and growing discontent from fans. With the next generation of consoles set to launch this fall, *Assassin's Creed: Valhalla* will take players to the nordic lands of vikings, and looks to capitalize on the capabilities of the new technology to immerse the players in an unforgettable experience and reclaim its fortune with the audience.

Some of the other prominent titles, such as *Farcry* and the *Tom Clancy* series have also amounted to phenomenal sales over their life spans, with some of their most recent titles, *Farcry 5* and *Rainbow Six: Siege*, both achieving historical achievements. *Farcry 5* was named "Ubisoft's best-selling game this generation" with over $310 million in sales in its first seven days of launch (Thubron 2019). The open-world FPS was a truly polarizing title, with the game taking place in the rural lands of Hope County, Montana, and tells the story of a spiritual and bizarre Seed family that warns the citizens of impending armageddon should they choose not to follow their lead. *Rainbow Six: Siege*, being launched back in 2015, continues to be a crucial asset to Ubisoft and has garnered a global player base with a particular eye on ESports, being Ubisoft's main player in this industry. Its competitive scene is featured on the ESL channel, and has run for 11 seasons and four years (Martinello 2018).

Ubisoft's Push Towards Mobile Gaming

Ubisoft made its official dedication to mobile gaming official when it acquired the mobile studio Ketchapp back in 2016. The studio is responsible for games such as *2048, ZigZag,* and *Ballz* (Grubb 2017). With this acquisition, Ubisoft became the fourth largest mobile game publisher in regards to downloads, and has since continued to produce new titles on a frequent basis. While these games offer no true players vs player aspects, Ubisoft and Ketchapp have instead for a more lenient and laid back approach to mobile gaming, compared to the likes of *Hearthstone* by

Activision Blizzard (Cacho 2015). With Ketchapp's support, this marks yet another big market player clawing their way into the mobile game industry, where the smaller studios are attempting to put forth enough solid products to the point where they can eventually be bought and continue to receive aid. It remains to be seen if Ubisoft attempts to expand even further in this tightly-packed group of developers, but there is certainly awareness on their end in seeing the benefits of putting resources into a multi-billion dollar industry.

A History on Failed Promises

Perhaps one of Ubisoft's biggest achilles heel this past decade has been the tendency to fail to live up to their own expectations. There have been countless E3 and Gamescom presentations that simply did not match the final product that was delivered on the shelves. The likes of *Watch Dogs*, *Tom Clancy's: The Division*, even some of the *Assassin's Creed* titles suffered from overproduced cinematic trailers and unrealistic gameplay provided by the developers (Tassi 2016). Once the actual games were released, fans were always quick to point out how different their experience was from the one they were promised.

Since the first look of *Watch Dogs* was shown in 2012's E3 conference, the company has been reluctant in presenting games with advanced graphical features, and Ubisoft CEO has since gone on record to say that "[they] learned from the mistakes [they] made with Watch Dogs" and that "it was maybe a bit too much for a first iteration" (Stuart 2015). While the franchise has struggled to rebound following a subpar sales number for the first game, others like *Tom Clancy's: The Division*, which also suffered from the same fate of broken promises, the second installment was actually received much better, though it still failed to meet Ubisoft's sales expectations.

UPlay and Trying to Prevent Piracy

Uplay is a multiplayer, digital distribution, and digital rights management service created by Massive Entertainment for Ubisoft back in July of 2012. Its main use up to this point has been in connecting players together for Ubisoft's titles, as well as making licensed purchases through their own store and locking the game to that specific account. Prior to the launch of this service, Ubisoft was struggling to contain all of the potential piracy with its titles, and so now each game requires the player to log into their Ubi.com account before playing. This also means that an internet connection is required at all times to play Ubisoft games, which can and has stirred some players away from experiencing the games that they paid for. Nonetheless, Ubisoft claims that "Most people are always connected to an internet connection," according to Brent Wilkinson, Ubisoft director of customer service and production (Brice 2010).

Promising Yet Dangerous Future for Ubisoft

With the aforementioned next generation of game consoles set to launch in the fall of 2020, Ubisoft has already set their sights on the very near future. The upcoming release of *Assassin's Creed: Valhalla* will set the tone for Ubisoft's performance in the next decade, but some concerns have already begun to rise up regarding the game's ability to take full advantage of the new hardware. The main issue is surrounding the report that *Valhalla* will only be able to run at 30 frames per second, while the other titles that are set to launch will be able to support 60 frames (Vjestica 2020). The report about the lower frame rate is especially discouraging given

Ubisoft's history of failing to live up to the hype that was mentioned earlier. While nothing is set in stone yet, if this development were to be proven true, it would certainly derail Ubisoft's plans to leave a positive impression out of the gate. In addition to *Assassin's Creed: Valhalla*, Ubisoft is also in development of a naval warfare title *Skull & Bones*, which has experienced its fair share of setbacks, pushing its release date all the way back to March 2021.

-Y.O. Spring 2020

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United States, Esports, Labor Politics

Overview

Competitive gaming, also known as esports, is a rapidly growing industry characterized by an absence of contract provisions, employment terms, and labor laws. Similar to traditional sports, esports is defined by team or individual competition and challenges, where the goal of each athlete and team is to win against their competitors. Esports viewership and professional salaries have risen to the level of traditional sports, creating a billion dollar industry; as of 2020, the U.S. esports industry generated $40 billion in revenue with a year-over-year percentage increase of 8.5% (Saiz-Alvarez 2020).

Game companies who have made and published popular esports titles (e.g., Riot Game's *League of Legends*, Blizzard Entertainment's *OverWatch*, and Valve Corporation's *Counter-Strike*) maintain complete control of professional competitions that their game can undergo (Wong 2020). This has developed a culture of rapid and informal deals within professional leagues as well as a limited job market for upcoming competitive gamers. Players are typically compensated through the cash prizes they win from tournaments and the salaries that only some receive from organization partnerships (Johnson and Woodcock 2021). Though, under such agreements, it is still unclear whether players are considered employees or independent contractors as they have 'limited bargaining power' over their contracts. This lack of transparency leaves competitors vulnerable to labor exploitation despite their contributions to the organizations they represent.

Franchising in Esports

The continual growth of esports motivated team organizations (e.g., Team Solomid, Team Liquid, Cloud9) to propose a franchising system to game publishers. Here, a game publisher who owns a competitive league can offer up a finite number of available spots for teams to pay an entrance sum and thus compete in that league (Suncho 2022). This is intended to provide a stable economic environment for select team organizations and players to compete in, however, it consolidates more control to game publishers as they now have fewer organizations to regulate. In 2017, Riot Games and Activision Blizzard introduced the franchising system offering around 10-12 available franchise spots. The buyout for these spots were priced between $10 and $13 million per franchise for Riot Games and $20 million per franchise for Activision Blizzard (Esports Supply 2021). Since the start of franchising, Riot Games has maintained deals with the same teams they sold buyout spots to in 2017 as most franchised teams only sell their spots when financial issues arise. As such, other new and smaller team organizations rarely have opportunities to enter professional leagues as the franchise spots are either too expensive or locked by another organization.

This shrinking of team organizations within the market lowers opportunities for new competitive gamers to find work within the esports industry as the necessity for organizations to find new talent becomes significantly lower. Since esports teams are not at risk of losing their franchise spots, they do not have much incentive to look for newer players. Instead, franchise teams tend to sign well known players that have a high success of winning or can represent their team brand

and sponsorships well. For Example, in League of Legends, franchised team organizations have tendencies to repeatedly sign the same players across multiple years like, Soren “Bjergsen,” a professional player that has been in esports for 8+ years and was the face of Team Solomid’s branding (Smith 2020). Franchising creates a limited job market only available to a selective amount of players making it near impossible for many esports players to make a living unless they are signed to a team organization.

Youth Exploitation in Esports

Team organizations typically look to sign younger players under the idea that they are more well equipped to play video games at the highest level than older players. Professional players have been as young as fifteen years old when entering a contract with team organizations. It is even estimated that esports players usually go professional between ages 16 and 18, and retire between ages 22 and 24 (Wong 2020). When a young player attracts the attention of an organization, they typically receive offers through their email box, to which they are expected to accept within a few days, or even a few hours (Suncho 2020). Esports Pro Player, Jeff “Blasé” Tsang, for example, was 16 years old when he received multiple offers from franchised teams within the Overwatch League. However, most of these contracts offered low pay, the ability to discontinue a player’s salary based on performance and even the rights to sell the player to another organization (Smith 2022). Due to the lack of regulation within esports, many team organizations are thus able to utilize questionable practices around the signing and handling of players.

Currently, there are also no players’ unions, collective bargaining agreements, or mandatory subjects of bargaining in esports. Many of the terms and conditions found within the agreements signed are either between (a) professional players and team organizations, (b) team organizations and game publishers, or (c) game publishers and professional players (Wong 2020). This creates a culture of labor exploitation within esports since players are not legally protected against any harmful practices team organizations choose to incorporate. Team organizations have even acted as exclusive agencies for their players, taking substantial percentages of revenue players bring in through sponsorships and ad deals. In 2020, prominent esports organization FaZe Clan, settled a lawsuit with Turner “Tfue” Tenney, a famous competitive Fortnite gamer. The terms of the contract allowed FaZe to take up 80 percent of the deals it sourced for Tenney (Smith 2022). Exploitive practices such as these are extremely common amongst young players as they value the opportunity to ‘go big,’ often overlooking the terms of the contracts they sign.

Sexism in Esports

Unlike traditional sports, esports is theoretically, an equal playing field regardless of gender, yet significant barriers exist against women within the industry. The misogynistic experiences that women often face as players are related to and compounded by the sexism of wider gaming culture (Castello 2021). Women are often excluded from esports due to an almost entirely male dominated environment such that women have a noticeable low involvement at the hands of sexist culture. A 2019 study from data firm Interpret, for example, found that women only comprise 30 percent of esports viewership and 35 percent of esport gamers (Bondy 2020). Since women are heavily discouraged from being in these spaces, they are also rarely offered deals with team organizations to sign on as a professional player. Women thus turn to streaming to

supplement their incomes when they are not competing. Sexism in competitive play has caused the development of supportive organizations including Global Gaming Woman and Women in Games, in which they provide resources and deeper insight for women looking to go into professional gaming. Nevertheless, competitive gaming spaces are still entirely dominated by males. This disparity in esports creates substantially different experiences for men and women, often leaving women vulnerable to ostracism and discrimination in the workplace.

-S.G., Spring 2022

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Virtual YouTubing (VTubing)

Introduction

Virtual Youtubing (VTubing) is a type of content production on video streaming platforms. Instead of being on a customary face camera, content producers, called Nakanohitos (中の人), embody a 2D or 3D digital avatar mapped to their facial expressions and body movements. They typically regard avatars as distinct fictional characters and interact with followers in roleplay, keeping real identities unrevealed. With YouTube being the primary platform, VTubers also use other platforms to engage with audiences, including Twitch, BiliBili, and X (formerly Twitter).

VTubing originated primarily from the gaming community but has expanded to encompass various content genres, including vlogs and performances. The digital trend rose in Japan in the mid-2010s and became an international online phenomenon in the 2020s. In 2022, the value of the global VTuber market reached 2.1 billion US dollars (MarketWatch 2023).

How It Works

The operation of VTubing involves a combination of additional hardware and software setups. To create the animated avatar model, individuals need to sketch the character and rig it into a model with animation software, such as Live2D and VRoid Studio. VTubers can customize the avatar's appearance with multiple sets of premade assets. The rigged models need to be integrated with motion capture services, such as Facerig and Vtube Studio, through a webcam to mirror facial expressions and body movements in real-time. The price of a model may range from free to 20 thousand US dollars, based on the level of complexity and detail (ironmouse 2023).

2D VTubers can employ hand-tracking devices to enhance the model's flexibility, and 3D VTubers usually present more dynamic and lifelike performances with higher production costs. To broadcast the final output, VTubers can use software like OBS Studio to channel the animated model with other audiovisual elements together.

History of VTubing

A precursor of Virtual YouTubing debuted in 2011 by Ami Yamato, an English and Japanese vlogger on YouTube known for her 3D animated persona. Despite her pioneering use of digital avatars on camera, Yamato (2020) did not self-identify as a VTuber: "What's a VTuber? [...] Everyone is virtual on YouTube." Nonetheless, Yamato exemplified how the advancement of computer technology, such as motion capture and network streaming services, formed the technical framework for VTubing.

The emerging VTubing trend in Japan was influenced by Japan's Otaku subculture, which originated in the 1980s and was characterized by a strong enthusiasm for animation, comics, games, and related content (Galbraith 2019). This cultural linkage promoted anime-style avatars and encouraged people's cultural affinity with the new form of streaming. Kizuna AI (2016), developed by Japanese technology company Activ8, was the first to self-claim as a "virtual YouTuber" and achieved breakout popularity, gaining 2 million subscribers within 10 months.

AI's success sparked an enlarging VTuber population (Nagata 2018), concurrently followed by the establishment of VTubing Talent agencies in 2018. The two largest agencies in Japan are hololive Production and NIJISANJI. Influenced by the Japanese Idol industry, agencies engineer and own virtual avatars as their intellectual properties (IPs), recruit and train Nakanohitos for content production, and manage IP commercialization (Cover 2023, 24). Individual VTuber channels hold little weight against these multi-channel agencies. In January 2020, 94 out of the 100 most followed VTubers on YouTube were run by agencies (User Local 2020). From April 2019, both agencies started to reach a global audience, recruiting VTubers speaking other languages, including English, Chinese, or Korean.

The COVID-19 pandemic promoted VTubing into a quickly expanding industry and an international phenomenon. Since mid-2019, the rate of growth in viewership for VTubers nearly doubled the overall viewer growth rate on Twitch (O'Meara 2021). Japan's VTuber base rose by nearly 1600% from 2018 to 2021 (User Local 2021). English-speaking VTubers have seen a surge in popularity, including hololive-EN member Gawr Gura, who surpassed AI to become the most subscribed VTubers on YouTube (O'Meara 2021). Another boasting VTubing market is China, whose market value reached 42.2 million dollars in 2021 (iResearch 2022). Domestic leading players involving VirtuaReal (NIJISANJI-CN) and A-SOUL from Yuehua Entertainment are active on BiliBili with millions of followers (iResearch 2022, 17).

Monetization

VTubers earn revenues largely relying on the monetization model of livestreaming platforms. Livestreaming revenues accounted for 32.3 percent of hololive's annual revenue and at least 31.4 percent of NIJISANJI's in 2021 (Anycolor 2022, 6; Cover 2023, 14). Over the second quarter of 2023, the most popular 10 VTubers on Twitch and YouTube, according to the peak viewers, livestreamed for more than 22 hours per week on average (Dempsey 2023). Through livestreaming, VTubers can build their fandom and earn income by receiving donations and virtual rewards from the audience. After paying the platform fees, individual VTubers can retain the rest of their income, while corporate VTubers usually need to pay a proportion to their agencies and earn a lower share, depending on their contract.

Another important proportion of revenues is based on IP commercialization, especially for corporate VTubers. Targeting VTubers' fandom, agencies produce derivative goods and services and operate events such as concerts and Vtuber conventions, making profits from merchandise sales, ticket fees, and advertiser sponsorships (Cover 2023). There will also be a split in revenue between agencies and VTubers under contract. Influential Vtubers can also collaborate with other brands and earn IP authorization and product endorsement fees. Hololive member Inugami Korone, for example, was announced in 2022 as the official brand ambassador for the Sonic the Hedgehog franchise in Japan. In the same year, Korone-themed downloadable content (DLC) was released for *Sonic Frontiers* as a pre-order bonus, and this game has the series' highest launch sales since 2003 (Romano 2022).

VTubing, Video Games, and Esports

Video games have been a major topic of VTubing since its emergence. AI, the first self-claimed VTuber, launched her A.I. Games YouTube channel in March 2017. In contrast to the anime girl's appearance, AI's unexpected shenanigans during gaming contributed to her popularity

among the non-Japanese audience (Morrissi 2020). Other agencies also introduced specific groups of more professional VTubers in gaming during their early stage, such as hololive Gamers and NIJISANJI Gamers.

VTubers often broadcast their own live gameplay experience or spectate others' gameplay. They display gameplay skills and inform viewers of interesting video games, using VTubing to cultivate a community of gamers with similar interests. In 2023, the top game genres for VTubing include Adventure, RPG, FPS, Strategy, and Sandbox (An 2023). Compared to other streamers, Vtubers occupy a smaller proportion of the streamer population but have a faster growth rate in gaming content viewership on both YouTube Live Gaming and Twitch (An 2023).

VTubers also play an active role in Esports by organizing and participating in video game tournaments. Current Neo-Porte member and TSM eSports team's streamer Shibuya HAL organized VTuber Most Cooperatitive Tournament, the most high-profile series of *PlayerUnknown's Battlegrounds (PUBG)*, *Apex Legend*, and *VALORANT* seasonal tournaments for VTubers from 2018. The peak number of viewers reached 84,793 on YouTube in the 2020 Apex tournament (Eschart 2020). On the institutional level, the Virtual eSports Project (VSPO!), founded in 2018 and concentrated on esports, was the third-most subscribed VTuber agency in Japan, with over 5 million subscribers on YouTube. It was renowned as the ambassador for the *VALORANT* Masters Tokyo 2023 Championship run by Riot Games. The increasing influence of VTubers in the video games industry leads to more intertwinement and consolidation of the two sectors.

-S.C., Fall 2023

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Voodoo

Introduction

Voodoo, also known as Voodoo.io, is a leading hyper casual game developer and publishing company founded in 2013 and based in Paris, France (Voodoo 2023). Voodoo's games have achieved over 7 billion downloads worldwide, making it the third-largest publisher in terms of app installs following Google and Meta (Voodoo 2023). Voodoo launched more than 200 games and has 150 million monthly active users. Their successful portfolio includes hyper casual mobile games such as '*Helix Jump*', '*Paper,io*', and '*Crowd City*,' monetizing through in-game advertising and in-game purchases. Having raised over 1 billion dollars through multiple investment rounds from Goldman Sachs, Tencent, and GBL, along with various acquisitions, Voodoo has expanded its scope to include publishing and non-game apps (Voodoo 2023). Voodoo currently has more than 750 employees worldwide (Voodoo 2023)

Founding

Founded in 2013 by Alexandre Yazdi and Laurent Ritter, Voodoo developed and published two games in the first four years, but the outcomes of these games were not as successful as expected (Takahashi 2018). In 2016, Voodoo adopted a new approach in game development by utilizing Unity game engine to develop, test, and launch its games more quickly, publishing five mobile games a month (Takahashi 2018). In 2017, Voodoo released '*Paper.io*', one of its most successful mobile hyper casual games, which proved and validated Voodoo's new strategic direction (Bradshaw 2020). Voodoo released '*Helix Jump*', '*Crowd City*' and '*Hole.io*', which also ranked top in both Apple App Store and Google Play Store (Bradshaw 2020).

Hyper Casual Games and Business Model

Hyper Casual game is a genre of mobile games that are characterized by its simple and fast gameplay mechanics, short playtimes, and addictive gameplay elements (Heinze 2017a). Hyper casual games are intentionally designed to be easy to pick up and play, with simple controls and intuitive gameplay that does not require any tutorials. In 2019, over 45% of entire mobile game installs were hyper casual games, approximately 7.8 billion downloads in total (Moloco 2021). Then in 2020, the total downloads of the hyper casual game genre increased to 11.8 billion downloads in total, which reflects its huge growth in mobile gaming landscape (Moloco 2021).

Emerging as a dominant force in the mobile gaming industry and market, the hyper casual game genre has been adopted as an efficient approach to win over players with minimum effort and time. Hyper casual games have a "free-to-play" model, which allows players to download and play games for free, generating revenue streams through in-app purchases and advertising. Due to the limited nature of revenue streams, the hyper casual game genre tends to focus on building a large volume of dedicated user base (Heinze 2017b). In order to maximize the revenue from advertising, game developers must include graphic and game elements that could appeal to a general audience with countless levels for people to play that game for a long period of time. These in-app advertisements not only show the gameplay and marketing videos but also evolved into playable in-app advertisements with simple and interactive controls (Heinze 2017b).

Advanced playable advertisements expose and engage potential players with the core game mechanisms and tutorials, which include addictive elements like graphics and sound effects appealing to the viewers, which was also recognized as the most effective ad format to appeal to the market by the US agency professionals (Cakebread 2019).

Voodoo is one of the leading publishers and game developers of hyper casual games with popular titles like *'Helix Jump'*, *'Avoid'*, and *'Rolly Vortex'*. Its approaches focus on developing games that are so easy that the players can instantly understand how to play, with addictive elements that could lead to high retention rates, which followed the hyper casual game genre formula. Based on this strategy, Voodoo was able to build a portfolio of games that create 20 million to 100 million dollars per year (Campbell 2023). However, Voodoo plans to diversify its portfolio by creating casual to midcore mobile games that have higher retention rates and monetization opportunities (Campbell 2023).

Accusations of Cloning

Voodoo has been criticized and accused of cloning popular games and releasing their mimics under its own brand. The accusations included copying the gameplay mechanisms, graphics, and user interface of existing popular games in the app stores. One of the most famous examples is *'Flappy Bird'*, which was developed by Vietnamese developer Dong Nguyen and released in 2013. It became an instant and viral hit with over 50 million downloads in its first year. Voodoo quickly created *'Flappy Dunk!'*, which shared similar gameplay mechanisms and game name with the original *'Flappy Bird'* (Futter 2018). In Voodoo's game portfolio, popular games like *'Rolly Vortex'*, *'The Fish Master'*, *'The Cube'*, *'Infinite Golf'*, and other games are regarded as clones of other indie games in the market (Futter 2018).

Since copyright law does not protect game ideas or mechanisms, these game cloning are not considered as an infringement in the legal context (Chen 2012). However, clones share a lot of similarities with no effort to differentiate themselves from the original games. At the same time, Google and Apple introduced some guidelines to prevent cloning, but they still allow similar experiences unless clones exploit the same codes or assets (Futter 2018). These lenient measures do allow clones to circumvent restrictions with small changes, highlighting a gap in the enforcement of originality in the mobile gaming landscape. Voodoo responded to these accusations by stating that games in the market are just different interpretations of popular gameplays providing their own experience and gameplay elements (Futter 2018). Voodoo also shared that it buys bulk installs from ad networks as a part of user acquisition and marketing strategy, which directly goes against Apple and Google's app marketplace policy, but later Voodoo withdrew these comments and removed any relevant information from their website (Futter 2018).

Investments and Expansion

Voodoo has raised multiple rounds of investments from various investors and organizations, reflecting its success and potential to expand its scope from hyper casual games to various genres in the gaming industry. In 2018, Goldman Sachs invested $200 million dollars in Voodoo without disclosing any terms of the deal including Voodoo's company value (Rosemain and Barzic 2023). Then, in 2020, Tencent, the largest gaming company in the world, valued Voodoo

as $1.4 billion dollars and gained its minority stake from investment (Bradshaw and McMorrow 2020). Throughout the years, Voodoo has raised over 1 billion dollars in total from various backers including Goldman Sachs, Tencent, and GBL (Voodoo 2023).

To support its developers in each region, Voodoo has expanded and opened new offices in Barcelona, Chicago, Istanbul, and Tel Aviv. By 2020, Voodoo achieved 4.4 billion total downloads with over 100 games launched (Kaya 2020). In February 2022, Voodoo's games and apps were downloaded over 6 billion times after achieving 5 billion downloads in May 2021 (Astle 2022). Currently, Voodoo's portfolio has achieved 7 billion downloads in total (Voodoo 2023). By acquiring companies like Beach Bug, GumBug, and other companies, Voodoo started diversifying its gaming portfolios to hybrid games (Dillet, and Voodoo 2021). Moreover, Voodoo expanded its portfolio from social apps like Wizz, and Wemoms to cash gaming apps like Blitz (Voodoo [n.d]).

-K.K., Fall 2023

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WeChat Mini-Games

Overview

WeChat mini-games platform is a new feature released by the largest social media in china — WeChat on December 28th, 2017. These small-sized, social media integrated F2P games can be directly accessed while using Wechat without downloading. In other words, they are more like plug-ins on WeChat. In 2018, WeChat mini-games has 100 miliion Daily active users, with over 7000 games on its platform. People spend on average 13 minutes per day on mini-games. (iiMedia Research, 2019). This can be partially explained by the remaining tremendous user base of WeChat in China. According to Research, from February to December 2018, WeChat's monthly active user has maintained over 900 million. (iiMedia Research, 2019)

On April 4th, 2018, WeChat mini-games has opened its platform to third party game developers. In game purchases and advertising is also available during game development. In 100 days after its openness, WeChat has posted their commercialization statistics. Over 2000 games were launched, and daily advertising revenue has reached 1000 million RMB, eCPM (earnings on every 1000 ad views) were more than RMB 80 (Fan, 2018). More incredibly, retention rate after 7 days has achieved 45%(Wechat Team, 2018), compared to 7% for regular mobile games (GameAnalytics, 2017).

Key Features of WeChat Mini-Games

The success of WeChat mini-games can be explained through both user and developer perspective. On the user wise, first of all, even though some contains in-app purchase, most mini-games are free to play and require no storage space. Such zero barrier to entry is important for the Chinese lower class smartphone users.

Second, WeChat mini-game is "a good way to kill time." (Medium, 2018) Mini games require no installation required and most of them requires minimum level of gaming experience. It is an ideal fit for modern lifestyle filled with fragmentation of time. Popular games mechanics include Chinese poker, bottle flip, farm simulator. Most of them takes only few minutes to complete one round.

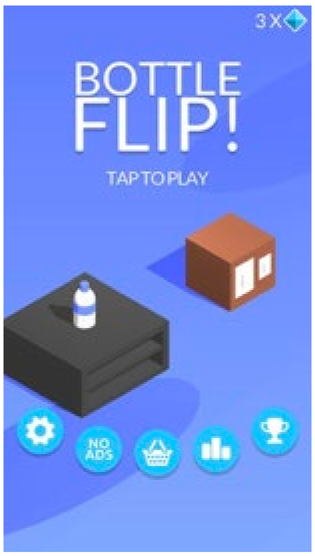
Third, Game account synchronizes with user's WeChat Account and you are automatically linked, compete with your WeChat friends. Players can directly share the game via chat boxes with their friends. By clicking the link, their friends can directly open the game or even join the same round to play with them. Also, WeChat now provides features including "Peng You zai Wan," which allows users to see which mini game is popular among their social circle.

On the developer perspective, WeChat mini-game has a limitation of 8M size (increased from 4M since its launch). They can only be written under HTML5 with small programming requirement. However, in this case, low cost are paired with high return. Thanks to WeChat's dominating DAU in Chinese Market, mini-games has huge initial exposure to WeChat's user base. Like most mobile games, "invitation bonus" is popular among mini game developers. However, due to the mini-games' low barrier to entry and the easiness of sharing on social

media, CAC (Cost of Customer Acquisition) became much lower than regular mobile games, leading to huge commercial value for in-game purchase, advertising, and even online shopping.

Business Model

Due to mini-games' feature of F2P, high integration with social media, high DAU and retention rate, it is an ideal solution for advertising. Take one of the most famous mini-games "Tiao Yi Tiao" as an example, the game of one of the 17 games that was first released in December 2017. It is basically a replicate of the casual game "bottle flip" (Figure 1) created by Ubisoft.



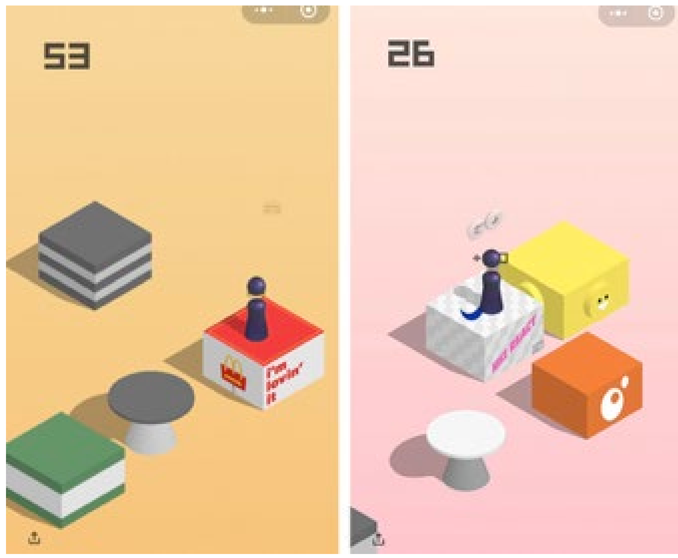


Figure 1: Bottle Flip by Ubisoft (Left). **Figure 2**: Tiao Yi Tiao by WeChat (Right)

However, two games with almost exact the same mechanism didn't have the same outcome. Bottle Flip was launched on App Store on 2016, and didn't make a big splash. However, after 2 years, Tiao Yi Tiao gained over 100 million DAU in 30 days, with a 7-Day retention rate of 52%, comparable to some top tier mobile games on the market (ChinaChance, 2018).

Higher popularity indicates higher commercial value. In March 2018, Tiao Yi Tiao has posted their price board for advertising. Advertisers can customize their own "boxes" in the game, including the sound effects and graphic effects when the player jumps on them. Such "boxes" will randomly appear during game play (Figure 2). Advertising is priced based on CPD (Cost per day), with 5 million RMB for 1 day, 10 million RMB for 2 days, and 20 million RMB for 5 days. Also, exclusive advertising is not guaranteed (GameLook, 2018).

Other than customized product placement, the platform also provides banner advertising and incentive video advertising. Banner advertisements are usually placed on the top or the bottom on the mini game page. Incentive video advertisements tend to integrate with game mechanism. For example, many mini games will ask you to watch a short video to gain extra money or life after each round of the game.
In terms of ad sharing, for mini games with less than 100,000 DAU, earnings are split 50:50, for games with more than 100,000 users, they are split 30/70. However, in this case WeChat will take the lion's share, which is different compared to other major game distribution platform like

steam. This is mainly caused by the mini-games' dependencies on the large WeChat User base (Fan, 2018).

Impact on the Game Industry

Li Qing, director of WeChat mini-games and developer of the mini program ecosystem, believed that WeChat mini-games feature should be considered as a new category in gaming industry. For game developers, its "small" size and low requirement of programming maybe suitable for testing new mechanisms (Fan, 2018). Also, it is a neutral and open platform for everyone. Li Qing believes middle school students can put together a mini-game and launch it on WeChat if they want, and that is an outcome they will celebrate. (Fan, 2018). Currently, WeChat's R&D teams is also working on providing more development tools for its users, including overseas developers (Qing, 2018).

Talking about commercial value, Li Qing understands that "commercialization of game content was directly proportional to the strength of the platform" (Fan, 2018). WeChat mini-game department believes that their mission is to create a decentralized platform that minimizes the advertising revenue for small or individual game developers under such highly competitive market, and leaving them more chances to focus on the innovation of the content itself.

Lastly, as smartphone became a "basic standard" in China, it is hard to see completely new mobile game users in this era. For current mobile gamers, mainstream distribution platforms like the App Store are already dominated by giant game developers. Mobilemarketing platform, Morketing points out that the WeChat mini-game platform is "new opportunity for F2P Game monetization". (Morketing, 2018) While entering mainstream platforms are less likely to succeed, WeChat mini-games seems like an alternative method that can easily break into the market for both small game developers and companies looking for a relatively low cost but effective marketing solution.

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Whales

Overview

A whale is a video game player that is generally defined by their high levels of financial investment and value, spending large amounts of money on microtransactions or in-game purchases. These purchases often include mass spending on in-game currencies, cosmetics, loot boxes, or other miscellaneous game additions that benefit the player inside a system that encourages more spending for a better gameplay experience. At the peak of video game spending, whales represent less than 15% of the entire player base but generate more than 50% of the game's revenue (Shi et al. 2015). Ingrained with the ability to ensure or jeopardize a game's monetary success, whales have historically been a large target for video game developers. As more game companies try to "understand and characterize the players' buying power" whale attraction and retention are highly prioritized in order to generate more revenue (Yang et al. 2018).

The mobile gaming market continues to grow as one of the most profitable sectors of the gaming market with whales increasingly becoming more relevant and in turn, more desired (Yang et al. 2018). Through the freemium model that lies at the forefront of the mobile gaming market, developers aim to capitalize on this mobile market potential as application stores paired with in-game purchases successfully monetize the mobile gamer. Functioning as invaluable consumers, mobile-gaming whales are especially profitable—partaking in shaping a game's success trajectory.

History

The term "whale" has only recently integrated into the video game industry, finding its origins in the casino industry and largely, gambling. Casino players who qualified as whales were "rich, high stake, and most pursued," with large spending habits that contributed to over $1,000,000 per visit (Hill 2008). In an effort to attract whales, casinos would undergo "whale hunting," marketing tactics infused into stunts that attracted whales to that respective casino (Hogeweg 2021). The "hunting" encouraged brand loyalty as casinos engaged in serving special entertainment, perks, and comps—free meals, shows, and drinks—to attract and retain whale customers (Hill 2008). Continued, high spending increased a player's value and in turn, inducted them into whale status. Personally treated to the best casino suites with better amenities than lower spenders, casinos competed for whale attention in attempts to make a profit off bigger spenders, an acknowledgement that has shifted into the gaming industry.

With the introduction of microtransactions, the term "whale" has shifted into the game industry, dominantly in the mobile game market. There was a drastic decrease in an individual's monetary spending in the shift from casino to games, granting whale status to gamers who generally spent over twenty-five dollars a month (Shi et al. 2015). The emphasis is placed in the monetary collective, retaining players who have already spent money and generally, will continue to do so. In a scramble to convert players into whales and sustain whales entirely, game companies replace comps with in-game purchases that treat a player's character as one would get treated in a casino.

Gaming Ecology

Whales function both as a noun to indicate the valuable consumer-gamer and its verb "whaling" to indicate the action of mass spending on in-game purchases. As part of a larger ecosystem of economic networks, whales are situated at the top of a four-tiered food chain as the quaternary economic consumers (Yang et al. 2018). The four tiers include free-to-play players, minnows, dolphins, and whales with each tier respectively smaller than the previous tier and in exchange, generating larger pools of economic investment per individual player.

Free-to-play players are the first trophic level, generating no revenue for the developers as the players refrain from spending any money on microtransactions. By default, these players engage with games in its most minimal setting with no additional in-game benefits. As the least profitable tier, free-to-play players are a general target of acquisition amongst developers in an effort to convert "freeloaders into spenders" (Needleman 2015). The second trophic level consists of minnows—low spenders that "pay only $1 to $5 a month and contribute to less than 15 percent of the revenue" (Shi et al. 2015). Yet, minnows uphold the majority of converted players as the second trophic level, the most populous level of the three tiers of spenders. While conversion from minnow to whale status is certainly possible as players continue to invest into a game, retaining whales is a more profitable business course as large spenders are prone to dropping continuous, mass sums of money. The third trophic level consists of dolphins—moderate spenders that generally spend around five dollars a month (Lovell 2011). As game developers aim to attract more whales, dolphins are a large target because of its disposition as pre-existing spenders (Davidovici-Nora 2014, 90). As the tier below whales, dolphins are induced into paying more and breaching whale status.

The top-down system of consumption that is ingrained into the biological ecosystem is reflected in the gaming ecosystem as trophic levels are replaced with monetary value. Whales "consume" dolphins in mass spending, dolphins "consume" minnows in moderate spending, and minnows "consume" free-to-play players in low spending. While this ecosystem is relevant to the entire gaming market, the food chain is relative to every individual game in its different criteria to separate each tier. While less popular games may use five dollars as the benchmark between minnow and dolphin status, larger games generally increase this benchmark to reflect its consumer-gamer base. Alongside monetary divisions between each tier, there remains a significant divide between the tertiary and quaternary tier with the aforementioned divide between dolphin and whale spending including a price tag that has a five times multiplier (five dollars versus twenty-five dollars).

Freemium Model and Monetization

Engaging in a video game model of consumer spending insights, targeting whales is a profitable business move that is reliant on the freemium model as the "dominant strategy of the mobile gaming sector" (Lescop 2014, 17). The freemium model is a fusion between the "free" model and the "premium" model. The freemium model initially introduces a free game that is inherently embedded with in-game products that are designed to generate revenue, providing opportunities for gamers to buy in-game benefits and perks "with no obligation to buy them whatsoever" (Lescop 2014, 5). Yet, this lack of obligation is the driving force behind the sustainment of a player base and in turn, a whale base in the mobile gaming market.

With the idea of choice offered to the consumer-gamers, the free sector of the freemium model grants self-access to the premium sector of monetary consumption and investment. In this self-access, developers are enticed to generate user loyalty within an existing player base as players become more willing to pay for in-game benefits and features (Hsu 2016). Creating a chain of effect, freemium mobile games draw free-to-play users into starting a game with no additional costs. In turn, free-to-play users shift into minnows with continued loyalty and engagement, shifting each trophic tier into the next. With the optional microtransactions that transition primary trophic level players into secondary, tertiary, and ideally, quaternary trophic levels, freemium games "essentially remove the upper limit of user spending" and shape the consumer-gamer into a whale (Shi et al. 2015).

Whaling Concerns

Beyond recreational investment, there are concerns behind "whaling," particularly in younger demographics as kids are seen spending large amounts of money on games. As microtransactions and in-game purchases are becoming more prevalent in the mobile game market, children are prone to engage in unauthorized mass spending and "whaling" as the "most vulnerable [consumer]" using their parents' money (Chen 2019). While there are certainly methods to block "whaling," economic concerns are infused with moral concerns within the growing gaming market and community.

-K.Y., Fall 2022

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Wizards of the Coast

Overview

Wizards of the Coast (referred to as WOTC or just Wizards) is an American game publishing company founded by Peter Adkison in 1990. Their main headquarters are located in Renton, Washington as of 2022, with no international offices. WOTC originally began their business creating and distributing buildable card decks, with their first highly successful game being *Magic: The Gathering*. They have since expanded into tabletop roleplay games and tabletop roleplaying based digital games, mainly through their game, *Dungeons and Dragons*.

WOTC had been a subsidiary of Hasbro from 1999 until 2021, at which point it became an entire division (Wizards and Digital) of Hasbro instead. Thanks in part to Hasbro's influence, what started as a 5 person company has grown into one of the biggest tradable card game and tabletop RPG companies in America, boasting over 1000 employees across all its studios, with a reported operating profit of roughly 40.5% of Hasbro's company-wide operating profit.

Founding and Major Products

Before being acquired by Hasbro in 1999, WOTC was a private game publishing company founded in 1990. Their first successful independent IP was *Magic: The Gathering*, created in 1993. *Magic: The Gathering* is a trading card game that allows you to collect cards and build your own 60 card deck to battle other players. Roughly 3-4 major set expansions are released each year, allowing players to add to their collection on a regular basis. Since its inception, WOTC has released over 20,000 unique *Magic: The Gathering cards*, with billions sold globally.

Following the success of *Magic: The Gathering*, WOTC had the funds to acquire several game companies, among them the original creators of the tabletop roleplaying game *Dungeons and Dragons*: TSR. In 1997, WOTC purchased the company for $25 million USD, gaining the rights to what would become their second biggest gaming IP. They began planning the first 3rd edition of *Dungeons and Dragons* after this acquisition, which was released under Hasbro in 2000 alongside their newly created D20 system. The D20 system was a more structured, intuitive way to learn and understand the mechanics of the game, allowing the company to organically build a larger audience (DiceEmporium). To further foster a larger community, WOTC made the Open Game License in 2000, allowing anyone to publish systems that were fully compatible with the original *Dungeons and Dragons* core gameplay, spurring a massive increase in popularity for the game.

Hasbro Acquisition

Hasbro acquired WOTC in 1999 for $325 million, making it a subsidiary that year. Before the acquisition, WOTC had opened and purchased several retail stores to sell its products and offer locations for tournaments in games, but in 2001, Hasbro shut down a majority of them, claiming it was in order to "focus on WOTC's core business of designing games" (Providence Journal, 2003). Details about revenues from retail operations dictated that physical retail stores had an

operating loss of roughly $37,000 in 2001, likely further giving reason for Hasbro to shut down stores. Instead, Hasbro shifted WOTC's direction to focusing only on the creation of games and expansions for their two biggest IPs, not the distribution of them.

Under Hasbro's guidance, WOTC filed and was awarded for U.S. Patent No. 7,201,374 in 2007, granting them the trademark on gameplay design based around constructible strategy card games. The patent is anticipated to expire in late 2023, but until then WOTC has full rights to the system and mechanics design of *Magic: The Gathering*. Also under Hasbro, WOTC also created *Dungeons & Dragons* editions 3, 4, 5, and One D&D, each still offering other creators and companies to use their Open Gaming License to create third party compatible expansions to their *Dungeons & Dragons* core systems.

Following massive continued success and a company-wide reorganization at Hasbro, WOTC was appointed the lead part of Hasbro's new "Wizards & Digital" division in 2021, losing their status as a subsidiary to gain more power in the company and its marketing decisions. The company therefore turned its attention towards the digital landscape, searching for ways to monetize and distribute their games to a broader audience online.

Digitization

Following building success and a changing tabletop roleplay game landscape after the 2020 COVID pandemic, WOTC expanded into the digital sphere. In 2022, WOTC acquired D&D Beyond for $146 million USD, a digital toolset companion to *Dungeons & Dragons*, from Fandom Inc. to further world-class digital RPG play and bring *Dungeons & Dragons* to global audiences. The company began playtesting for One D&D, a backwards compatible D&D system, in 2022, calling it the "next generation of *Dungeons & Dragons*" (Wizards of the Coast, 2022) that would use this new digital space. Future D&D books and modules are also planned to be offered both physically and digitally to fans through the D&D beyond system.

Beyond that, WOTC's transition into the digital space allows them to "unlock recurrent spending," for players, shifting into what they described as a "4-quadrant brand" (Cocks, 2022). D&D beyond offers a subscription model with a recurring monthly or annual cost that allows players to spend money on additional features, alongside having to pay for the purchase of digital rulebooks. In 2022, WOTC expected to invest more into expanding the *Dungeons and Dragons* brand into film, AAA video games, and an expanded line of merchandise alongside their digital source material.

Likewise, due to *Magic: The Gathering*'s sustained popularity and ever increasing complexity, WOTC released *Magic: The Gathering Arena* in 2019. It is a free-to-play digital adaptation based on the original card game, allowing global audiences to participate in the game and battle each other in an entirely digital landscape. Switching to a digital landscape has also opened up the possibility for microtransactions, allowing players to purchase randomized packs through the online store instead of physical packets in retail stores. In order to grab larger audiences that may not already be fans of *Magic: The Gathering*, WOTC also began the *Magic: The Gathering* Universes Beyond sub brand in 2021, which aims to create new cards based on crossovers with other, non WOTC IPs.

Beyond just digitizing the game at a base gameplay level, WOTC also attempted to create a Magic: The Gathering Esports, capitalizing on both the digital landscape of *Magic: The Gathering Arena* and traditional tabletop *Magic: The Gathering*. In 2019, $10 million USD worth of prize money was planned to be divided among all esports tournaments, but after failure to launch successfully, the concept of a *Magic: The Gathering* esports was largely abandoned.

In the future, WOTC seems intent on continuing their digital distribution and development of their two major IPs, *Magic: The Gathering* and *Dungeons & Dragons*, establishing new avenues of monetization, and expanding the games into broader franchises. They will likely remain an important division of Hasbro, raking in massive profits for the company despite a decline in physical tabletop gaming over the years, and hold a lot of sway in the digital trading card game and tabletop roleplaying game landscape.

-D.K., Fall 2022

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World Esports Association

Overview

Created in May 2016, the World Esports Association is the result of joint efforts between industry-leading professional esports teams and Electronic Sports League, the world's largest esports company (WESA 2016). Dedicated towards professionalizing esports, WESA promises to standardize regulations and revenue sharing for teams as well as introduce elements of player representation. It seeks to create predictable schedules for fans, players, organizers, and broadcasters and bring all stakeholders to the discussion table. "The formation of WESA concludes over a year of negotiation between many teams and organizers, and it aims to bring much needed structure to a crowded esports ecosystem" (WESA 2016). The formation of WESA included many of the world's most well-known multi-gaming brands such as Fnatic, Natus Vincere, EnVyUs, Virtus.Pro, Gamers2, FaZe, mousesports and Ninjas in Pyjamas. They hope to add more members and is continuing talks with many organizations in Europe and North America.

Teams Involved with the Formation of WESA.
("World Esports Association (WESA) Leaked, Includes Top Teams and ESL.").

Natus Vincere Team Owner, Alexander Kokhanovskyy, said: "We welcome the inclusion that WESA offers in the decision-making process for competitions like the ESL CS:GO Pro League. The partnership, if I can call it that, goes one step further as well: Natus Vincere, along with all WESA teams, share in the profits when it comes to the WESA and their sanctioned events. That's a huge step for the industry." Owner and CEO of FaZe Clan, Thomas Oliveira, echoed the sentiment: "The incentive was certainly there to get involved in WESA. Not just financially, but intrinsically: this is a sign of the industry recognizing the value and role that teams play. We look forward to working with WESA to make a difference in the scene" (WESA 2016).

WESA Logo, 2018 (http://www.wesa.gg/).

Controversies

In its formation, WESA is the first institution to feature a Player Council which will advocate on behalf of pro-gamers in relation to league policies, rulesets, player transfers and will empower players when it comes to decision making.

> “The formation of WESA is a critical milestone on our way to grow esports globally, and we’re incredibly excited to work with some of the world’s best professional teams” said Ralf Reichert, Managing Director at ESL. “Their continuous support to the formation and structuring of the Association only further cemented our belief that esports is well on its way to become the leading source of entertainment of gaming fans around the world” (WESA 2016).

However, since its formation, there have been various accounts of dissent amongst those involved in Esports with WESA. Some dissent formed after one of the founding teams, FaZe, decided to leave the organization shortly after its formation.

> "After the WESA press conference, we raised the same concerns again and it was the first time we saw the external messaging and communication from WESA -- and it concerned us," FaZe said in a news release. "It doesn't lack big metaphors of what it could be, but it lacks transparency on how to get there and that is the main reason for why we are leaving WESA" (Wolf 2016).

Another controversy came about when people realised that ESL was the only tournament organizer with a voice. It lead to believe that ESL was paying other teams to join the organization, giving ESL significant leverage over other organizers. As ESL has a large financial sustainability, there were speculations that team owners would be willing to sign over rights in order to gain a portion of cash. "Since WESA also claims that they will sanction certain events–thereby making a distinction between “approved” and “unapproved” tournaments–this could potentially give them the power to shut down or stifle ESL’s competition" (Wolf 2016).

> Wolf also points out, “We don’t know what kind of conversations are happening behind close doors, but here’s what makes WESA scary: If WESA does not force teams to take part in ESL’s tournaments and limit their participation in others, it’s going to be difficult for the organization to be profitable. At the moment, there is no such rule, but there is significant reason to believe that at some point, tournaments will need to be approved by WESA before teams are allowed to compete” (Wolf 2016).

However, despite these conflicts, WESA is growing amongst Esports organizations. In 2017, Splyce and North, popular gaming teams, joined up with WESA, saying “Bringing in two more teams that affiliate with a leading traditional sports franchise increases our ability to both develop and build out our esports offerings, as well as move the industry forward in new and exciting ways. These organizations know the importance of structure and order in an industry, and will aid WESA’s mission to solidify these facets within our own” (Carpenter 2018).

Splyce Joins WESA in August 2017. (Zalik 2018).

WESA Today

In August 2017, WESA announced a new premier league for Paladins in cooperation with Hi-Rez Studios. Despite initial concerns that WESA had sanctioned the Paladins Premier League relations and player treatment, this league is not exclusive to the teams in WESA and their intention is for non-WESA member teams to join as the league expands. With the growth in players, especially with the skyrocket in popularity since open beta in September 2016, welcoming more than 15 million players, a demand for a top-tier esports league grew and was fulfilled through the partnership between WESA and Hi-Rez Studios. WESA continued to grow through the end of 2017, closing out December with record-breaking viewership and a sold out arena for the CS:GO Pro League Finals in ODense. Especially as CS:GO was the first official game that WESA looked over, this was a significant accomplishment.

The new year started with a huge undertaking. WESA and ESL were to bring CS:GO Pro League exclusively to Facebook starting in 2018. This was an important moment in WESA's history as it meant that esports was growing to the point where non-gaming communities could enjoy e-sports as well. This resulted in a record breaking season with a prize pool consisting of $1 million.

After two years, WESA expanded its top level management due to its successful phase of growth. Since its initial conception until August 2018, WESA has added five more teams and expanded into titles such as Paladins and Rainbow 6. It founded not only the Paladins Pro League, but the Rainbow 6 Pro League. WESA was able to reach new audiences and communities in esports with these expansions. The members of WESA also developed a fair, balanced, and attractive ecosystem for all participants. "For example, to maintain competitive integrity WESA developed the Multi Team Ownership regulations, preventing several teams being owned by one entity, various code of conduct regulations (i.e. regarding doping) and clear mechanisms for player transfers. Non-WESA teams have also agreed on complying with WESA regulations, which shows that other industry leaders share the vision" (WESA 2018). They also

developed a new travel policy that covered player travels and accommodations that enhanced player experience in offline events.

-B.C., Fall 2018

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Wuxia Games

Overview

Wuxia Games are a thematic category of video games grounded in traditional Chinese history, folklore, and martial arts culture, originated in Taiwan and Hong Kong. The term "Wuxia" literally means "martial swordman," and the theme "Xia" emphasizes personal heroic virtues, the defense of the weak, and the pursuit of justice in the turbulent world. Wuxia functions as a regionally specific thematic and aesthetic framework that shapes the narrative worlds, character designs, and moral codes of many Chinese action and RPG titles.

History

Wuxia entered the video game industry in the early 1990s. When imported Japanese and American titles failed due to lack of linguistic localization, Taiwanese game developers sought to produce original local-culture games to fill that gap (Cao 2025). Meanwhile, Hong Kong produced Wuxia TV series and films were at the golden period (Li 2025). Early works like *Xuan-yuan Sword* (1990) and *Legend of the Condor Heroes* (1993) only adopted narratives from Wuxia literature and cinematic works into basic backdrop design and role-playing experiences (Cao 2025). With the surge of in home computers and the rise of Wangba, MMORPGs took over the success of single-player Wuxia games. The most famous Wuxia MMORPG, *JX Online 3* (2009) developed by Seasun Games, shifted player perspective from a passive observer into an active participant, allowing player to explore and become part of the Wuxia world through diverse unrestricted gameplay and interaction with other players (Li 2025).

In recent years, under the popularity and dominant status of mobile gaming in China, mobile Wuxia games like *A Dream of Jianghu* (2018), *Sword of Justice* (2023), and *Where Winds Meet* (2024) were developed integrating both immersive single-player story experience and MMO social features, also emphasizing on the construction of player community . These three games are all developed by NetEase Games, who seems to dominate the development of Chinese mobile Wuxia games.

NetEase Games launched the international version of *Where Winds Meet* (2024) worldwide on Steam on November 15th (NetEase 2025). Wuxia games are expanding into the international market and gaining greater attention worldwide (NetEase 2025).

Thematic Narrative and Gameplay

Wuxia games are either based on traditional Chinese history or Wuxia novels written by Jin Yong and Gu Long, who are the most famous and authoritative Wuxia authors. In 1993, Taiwanese game developer Soft-World bought the copyright of Jin Yong's popular Wuxia novels to produce Wuxia games based on that (Chan 2006).

"Xia" existed in real Chinese history, and originally referred to a wandering swordman who acted on personal morality without consideration of wealth or social status, and evolved to a hero who dedicated to pursuing justice and carrying responsibilities of saving the weak by using violent power in turbulent time (Song 2024, Cao 2025). Accordingly, Wuxia games often appear to be set in tumultuous periods with fragmented social order and a weakened central authority, for the protagonist to enact and reveal heroic charisma.

This cultural foundation further shapes the typical trajectory of protagonist growth in Wuxia games: player characters usually begin as young individuals who gradually move toward the identity of a *Xia* through martial learning, practicing experiences, and moral decision-making (Cao 2025). This growth structure serves both narratives and mechanics, such as martial-arts cultivation, special skills and techniques, and internal-strength ability, translating the fictional conventions of Wuxia literature into practical mechanics.

MMO Wuxia games construct their core world-building and mechanics around the *menpai* (sects) systems drawn from Wuxia literature and history. Traditional sects like *Shaolin* the monks, *Gaibang* the beggars, and *Wudang* each own distinctive moral perspectives and different martial conventions. MMO Wuxia games allow players to join sects of their own choices depending on moral resonate or martial interest and establish identities and sense of belonging in socializing interaction with other players in the same sects. MMO Wuxia games' emphasis on socializing features and expansion of narratives through non-linear story-telling make the game world always alive. It allows players to contribute the narratives and become parts of the texts, fostering the collective and sustainable construction of the game world (Li 2025).

Monetization Model

Wuxia games mostly operate either in free-to-play or game time subscription model, while both monetize through in-game purchases. Mobile Wuxia games are usually free-to-play, while *JX Online 3* (2009) requires players to buy play time either in ¥15 CNY for 2000 mins, or in monthly subscription of ¥60 CNY for unlimited playing time in one month.

The in-game purchases are usually for buying the monthly pass, the season pass, or the in-game currencies like pearl or jade. The monthly pass in the Chinese mobile game market is usually priced at ¥30 CNY and the season pass is usually priced at ¥68 CNY, around $9.62. A season pass provides players with tiered rewards, including in-game items such as healing medicine, items used to upgrade levels or weapons, as well as season-pass-exclusive cosmetic outfits. Both monthly pass and season pass offer players several times its price in rewards, but require players to either log in daily or stay actively engaged and reach certain activity thresholds in order to claim these rewards, encouraging long-term player engagement and retention.

The in-game currencies can be used to buy various items but are mostly used for outfits and weapon appearances. Some Wuxia games include gacha pool for outfits, which like any other gacha game, the pull rate for the gacha-exclusive outfits is set extremely low and generate lucrative revenue. Direct purchases of outfits and weapon appearances are priced from ¥6 to ¥888, depending on the extravagance and special effects. Outfit dyeing is a unique monetization method used in Wuxia games exclusively. Players spend in-game currency to purchase dye materials in order to give their outfits or weapons distinctive colors that set them apart from others, while the dyeing process can also include gacha mode. The social characteristics of Wuxia games promotes players to emphasize personal expression and show-off, making the uniqueness of outfits and dyes closely tied to a player's identity within the game and encouraging purchases.

Major Successes

Wuxia games have achieved major successes in both player base and revenue. *Sword of Justice* developed by NetEase Games has surpassed 40 million players in the first month after it was launched on mobile platforms in China in June 2023 (NetEase Games 2025). *Where Winds Meet* achieved 30 million players in March 2025 after it was launched on the Chinese mobile platform for four months (McEvoy 2025). The game has generated a total revenue of $106.6 million in the first year after release (Diandianshuju). In the international market, the game reached 9 million players in two weeks after its international version was launched worldwide, indicating the popularity among international players and the success in foreign market (Where Winds Meet 2025).

- L.J., Fall 2025

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Xbox Game Pass

Introduction

The Xbox Game Pass, launched by Microsoft on June 1, 2017, is a gaming subscription service offering over 400 games from a frequently updated library across current generation Xbox consoles, Windows and cloud. The subscription service provides access to a broad range of games from nearly 40 first-party studios, and various third-party publishers for active members (Obedkov 2023). Game Pass provides additional features such as online console multiplayer, cloud gaming service, EA Play, and exclusive member discounts, with the offerings varying across different membership tiers. The subscription can be bought monthly or annually, with monthly costs ranging from $10 to $17 or an annual fee of $60 for the standard Xbox Game Pass Core tier, though prices and plans may differ by country.

The latest announcement of the XGP subscribers from Microsoft was in January of 2022 revealing a 25 million subscriber base. However, since then, the company has ceased disclosing subscription growth figures without explanation; most recently; there is only an estimated subscriber count of around 30 million by October 2023 (Tassi 2023). Several prominent rivals in the market are subscription-based gaming services typically including Sony's PlayStation Plus and Nvidia's GeForce Now. PlayStation Plus stands out among these, attracting the largest subscriber base with close to 48 million subscriptions (Statista 2023).

The Origin and Evolution of XGP

Microsoft initially conceptualized Xbox Game Pass in 2013 as a service for renting games; it was internally referred to a project named Arches, according to Microsoft's head of gaming ecosystems Sarah Bond (Moore 2021). However, this idea never reached the market in its original form. The decision shift was due to the success of other streaming services in the media industry, such as Netflix and Spotify, causing Microsoft to change its idea from a rental service to a subscription-based model.

However, publishers expressed significant skepticism and opposition to the concept of a video game subscription service, fearing that Game Pass might lead to a depreciation in the value of games. Considering publishers' worry, Phil Spencer, the CEO of Microsoft Gaming, adopted a cautious and low-risky approach for the initial launch of XGP in June 2017. This strategy involved primarily releasing older games with comparatively lower revenue prospects (Sirani 2022).

Players' engagement with Xbox surpassed the company's initial expectations, influencing their strategic choice to simultaneously release an exclusive first-party game, *Sea of Thieves*, on both the Game Pass platform and wider retail outlets on March 20, 2018. Then, the popularity of *Sea Of Thieves* on Game Pass marked a significant transformation in Xbox's approach, leading to a policy where every Xbox Game Studios game is released into the Game Pass library from day one without any extra charges beyond the regular subscription fee. This strategic pivot by Microsoft was a major differentiation from its competitors, establishing a strong unique selling point for the service. The statistic that Game Pass subscribers spend 50% more than non-

subscribers suggests that subscription-based service has maintained a positive trajectory (White 2021).

The Business Model and Economic Effect

The subscription-based business model represents a departure from the traditional linear approach of direct sales and one-time purchases of consoles and individual games. This model, which allows consumers to pay a recurring fee for access to a diverse game library, is designed to increase user engagement within the gaming ecosystem. Data presented at the 2022 Microsoft Game Developer Conference (GDC) highlighted the impact of the Game Pass on user behavior: subscribers played 40% more game titles and explored 30% more genres than before subscribing to the service. Additionally, as players invest 50% more time on games, they tend to spend 2.8 times more on in-game purchases (Sawhney 2023). Microsoft's revenue under this model comes not only from subscription fees but also from supplementary expenditures, including Downloadable Content (DLC) and expansion packs, which altogether contribute to 15% of Microsoft’s gaming revenue revealed by Spencer during The Wall Street Journal’s Tech Live conference in October 2022 (Warren 2022).

Xbox Game Pass offers different tiers to cater to different player preferences, with a total of four tiers: Core, Console, PC, and Ultimate. The newest tier, Game Pass Core, launched on September 14, 2023, replaces Xbox Live Gold. It retains the Xbox Live Gold features of console multiplayer service and offers over 25 Xbox Studios games at a cost of $9.99 monthly or $59.99 annually. Unlike Game Pass Core, the other three tiers provide access to a larger rotating library of over 400 games. The Console and PC Game Pass tiers are designed specifically for Xbox console users and PC gamers, respectively, with a slight price difference (Console at $10.99/month and PC at $9.99/month). The most comprehensive tier, Game Pass Ultimate, is priced at $16.99/month and combines all the benefits of the other three tiers into one subscription package.

The Games of XGP

The rotating library with over 400 titles on Xbox Game Pass mainly comes from first-party and third-party publishers. Microsoft owns around 40 subsidiary studios, organized into three main studios: Xbox Game Studios, ZeniMax Media, and Activision Blizzard. Xbox Game Studios, established by Microsoft, includes 15 distinct development studios like 343 Industries, Mojang Studios, and Turn 10 Studios, each with its own specialty in different video game genres. Under Phil Spencer's leadership since 2014, Microsoft's gaming sector has grown significantly, with notable expansions through the acquisitions of ZeniMax Media in March 2021 and Activision Blizzard in October 2023. These two major studios oversee various game development studios, including high-profile names like Bethesda Game Studios, Raven Software, Infinity Ward, etc. This expansion has brought numerous well-known game franchises to XGP, such as *The Elder Scrolls*, *Fallout, Doom*, *Call of Duty*, *World of Warcraft*, and *Overwatch* (Obedkov 2023). However, according to Spencer, titles like *Call of Duty*, *World of Warcraft*, and other Activision Blizzard games will not be available on XGP until 2024 (Pequeno 2023).

Xbox Cloud Gaming

Another integral component of Xbox Game Pass Ultimate is Xbox Cloud Gaming, initially known as Project xCloud, a cloud gaming service developed by Microsoft and launched on September 15, 2020. This service enables the playing of Xbox games across a variety of portable devices, including smartphones, tablets, PCs, and some smart TVs, irrespective of their hardware capabilities. Besides the hardware-free feature, Xbox Cloud Gaming allows owners of consoles and gaming PCs to continue their gaming sessions without the necessity for downloading, installing, or updating games (Simpson 2023). The operational mechanism involves running games on remote servers, with the audiovisual output transmitted to the player's device. The effectiveness of this real-time interaction is contingent on network speed and proximity to the nearest server. Due to the geographical distribution of server centers, Xbox Cloud Gaming is currently available in 28 countries globally (Fernandez 2023).

Incorporated within Xbox Game Pass Ultimate, Xbox Cloud Gaming provides access to a library currently encompassing over 200 games. This selection includes several EA Play titles, which are not available on the standard Game Pass. The library is dynamic, with new games being regularly added and others removed on a monthly basis (Fernandez 2023).

-H.C., Fall 2023

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Xbox Live

Overview

Xbox Live is an online multiplayer gaming and social communication service from Microsoft. It is primarily featured on Xbox home video game consoles and is also available on several different platforms and operating systems, and provides features like online multiplayer, voice and text chat, and achievements in games. It was originally launched in November 2002 alongside the original Xbox, a full year after the system's launch. Since then, it has received major updates along with every Xbox console release. The service is also frequently updated and maintained with new features and improvements. A premium membership, titled "Xbox Live Gold," is required to gain access to most of Xbox Live's online and social features.

History

The first Xbox was originally designed to compete with Sony's Playstation 2. As game developers flocked to create games for Sony's next system, Windows PCs were losing focus as a key gaming platform. Utilizing Microsoft's own DirectX graphics technology, the Xbox was designed to offer PC-like features and superior performance to the Playstation 2, as well as a robust online multiplayer interaction system. By focusing on providing a state-of-the-art online experience to console players, Microsoft could compete with existing players in the video game console space, like Sony, Nintendo, and Sega, and establish itself as a prominent figure in the gaming industry. The original Xbox was released in the U.S. on November 15, 2001, and Xbox Live was officially available to consumers a full year later on November 15, 2002, for a price of $49.99 a year (Pitts, 2013).

Platform Compatibility

Xbox Live is currently available on Xbox consoles including all Xbox 360 and Xbox One models. The service also comes built-in to the Windows 10 operating system in the form of the "Xbox" app, and is supported in certain games on the Microsoft Store. Additionally, Xbox Live is available on iOS and Android in the form of an "Xbox" app that can be downloaded from the platforms' respective app stores. In March 2019, Microsoft announced Microsoft Game Stack, an amalgamation of all of it's game development tools and features (Warren, 2019). Part of this toolkit is a new SDK which would allow game developers to include Xbox Live services in their games for iOS and Android. Microsoft has even opened up Xbox Live to games being developed for the Playstation 4 and Nintendo Switch, which would be the first time the service appears on a competing system. While Microsoft has experimented with using Xbox Live login in *Minecraft* for Nintendo Switch, the first game to fully utilize all of Xbox Live's features on a non-Xbox video game system will be *Cuphead* on Nintendo Switch, which was released on April 18th, 2019. Xbox Live features for the game have been announced, but are still in development, and will provide access to "matchmaking, chat services, and achievements" (Kaser, 2019).

Subscription and Features

There are two membership tiers for Xbox Live which provide different amounts of functionality to the user. A base Xbox Live Free account is free of charge and provides basic functionality to the user. Free features include an Xbox Live profile, along with a customizable personal avatar and a "Gamertag," which "is your alter ego in the Xbox world" (Microsoft, 2017). An account is required to use any online features on an Xbox console, including access to the Xbox Game Store to download games, demos, and downloadable content. An Xbox Live Gold membership is the premium tier that provides access to the majority of Xbox Live's features. These features include access to online multiplayer features in all supported games, communication features like voice chat and text chat with other players, and access to cloud saving and backup for games and software. Xbox Live Free was formerly branded as Xbox Live Silver until Microsoft rebranded it to Xbox Live Free in 2010, along with a yearly price increase for the Gold membership from $50 to $60 (Orland, 2010).

Along with core online gaming features, an Xbox Live Gold subscription also includes several additional features and perks for its premium users. Games with Gold provides anywhere from two to four downloads of full games every month, free of charge. These games are selected by Microsoft and are playable as long as the player has an active Xbox Live Gold subscription. Additionally, a Gold subscription provides access to Deals with Gold, which are promotional discounts on select games in the Xbox Game Store.

Pricing and Revenue

Based on Microsoft's current pricing information on the Xbox Live website, Gold membership options include a base one month plan which costs $9.99 and renews at the end of each month. Other options include a 3 month plan for $24.99, a 6 month plan for $39.99, and a yearly subscription plan for $59.99. Along with purchasing this service online directly, physical prepaid cards can also be purchased from certain retail stores, and follow a similar pricing system (Microsoft, 2019). Previously, Xbox Live Points could also be purchased as a form of digital currency and could be used to purchase games on the Xbox Store, downloadable content, in-game items, level packs, and more. This service was launched in November 2005 and was later rebranded to "Microsoft Points," but was ultimately discontinued by the end of 2013 and was replaced by local cash currency (Cole, 2005).

According to Microsoft's Earning report for Q3 of the 2019 fiscal year, Xbox Live has reached a total of 63 million monthly active users. While Microsoft has not publicly shared how much revenue it earns from Xbox Live alone, Microsoft reported $2.36 billion in "Gaming Revenue," which includes Xbox Live subscriptions, Xbox hardware and software sales, and other services including Xbox Game Pass (Microsoft, 2019). Comparatively Microsoft's biggest competitor in the console space, Sony and the Playstation 4 which utilizes its own "Playstation Network"

online service that was launched in November 2006, “has surpassed 90 million monthly active users as of end of November 2018” (Grubb, 2019).

- Y.K. Spring 2019

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Yostar

Overview

Shanghai Yostar Co., Ltd. is a Chinese game publisher and developer located in Shanghai, China. Founded by Yao Meng on August 14, 2014, Yostar also established two overseas branches in Japan and Hong Kong (悠星网络科技有限公司 2022). In the last eight years, Yostar has published six award-winning titles on iOS and Android platforms, including *Arknights, Azur Lane,* and *Epic Seven*. Yostar's games all have similar aesthetics and monetization procedure, but their games operate across different genres. The company has recently established its animation studio, Yostar Pictures, under its Japanese branch to create content based on its publishing titles. Overall, Yostar is a company that specializes in game localization, publishment, and distribution in global markets with its in-house anime production, multi-channel advertising, and maintenance of local fan communities.

Founding

Before founding Yostar, Yao Meng founded his first studio: StudioGM, after he graduated from college. He created several free indie games and a published indie game called *Nono from Another World* with his team from 2007 to 2016. At the same time, Yao founded Yostar, which grew out of StudioGM, in 2014 and focused on investing in other potential gaming studios. *Nono from Another World* was published as a mobile game in 2016. However, the game sold far less than Yao expected. Therefore, Yao integrated StudioGM as a sub-studio of Yostar and positioned Yostar as a publisher of anime Gacha mobile games (手游那点事 2020). In 2017, Yostar established two oversea companies to publish their games under different regulatory bodies. "Yostar Limited," located in Hong Kong, focuses on Korean and Global market publishing. On the other hand, "Yostar Inc. or 株式会社Yostar," located in Tokyo, focuses only on the Japanese market publishing and development. In addition, Yostar Inc. also founded its own animation studio in 2020 to produce animation series of their games (株式会社Yostar 2022). Yostar's current business model is to sign exclusive or investment deals with Chinese developers like Manjuu Game and HyperGryph to publish their anime Gacha mobile games in Japanese and Global markets, receiving revenue from in-game microtransactions, derivatives, and game-based animation production.

Art Style and Monetization

Yostar published six games from 2017 to 2021, including *Azur Lane*, *Arknights, Epic Seven, Mahjong Soul, Nekoparaiten, and Blue Archive.* These games are in various genres, including tower defense, board game simulation, RPG, and shoot them up. However, these games are united by their distinctive art style and monetization techniques. All Yostar games are free-to-play games and have the same Gacha monetization technique. The term 'Gacha' describes video games that attract players with unique lottery systems that offer random prizes, usually

characters, through purchasing in-game currency (Dai 2022). Gacha monetization is the primary source of Yostar's revenue stream.

Yostar games' art style is an important reason that encourages users to pull characters. Yostar games and their characters are in the Japanese Anime art style, which is considered a "profitable" style according to Yostar. Japanese mass culture, together with the language, appeals to the emotional level of consumerism through the systems of lovely characters, emotional stylistics, and sometimes Fanservice content (Russel 2008). For example, in one of Yostar's most successful games *Azur Lane,* one player on Reddit reflected: "For every dramatic moment with a "Shipgirl" sinking or them fighting the eldritch Sirens, you get tits in the face, string bikinis galore and panty shots by the fistful" (u/InnocentTailor 2019). The anthropomorphized warships that players collect through Gacha in *Azur Lane* are often portrayed in a sexual manner, encouraging players to treat them as "Waifus" (Wife in Japanese) and introducing a "Marriage" system for players to purchase wedding rings to "Marry" their beloved "Shipgirl" using real-world money (Britt and Britt 2021).

Another example is *Arknights*, which won an award as one of the Best Innovative Games from Google Play in 2020. *Arknights* is a Chinese-developed game that initially came up with Chinese and English versions, but the game audio is only in Japanese. Yostar adapted the Japanese Anime style voice in *Arknights* to sell them to the West (Pashchenko, Oksana, Victoriia, and Neliia 2021). With Japanese Anime art style and Gacha mechanism, *Arknights* and *Azur Lane* generated more than one billion dollars for Yostar worldwide (SensorTower 2022).

Localize for Global Fans

Yao said in an interview about Yostar that: "Yostar is a company that will share its favorite games with global players" (手游那点事 2020). Yostar wanted to make its titles accessible and attractive for the diversified global market. Therefore, localization is crucial for Yostar to generate and sustain global fan communities. Anime is one of the regional customizations for TV & billboard advertisements in the Japanese market. Yostar also created a Japanese-style adaptation for *Epic Seven*'s Japan localization. *Epic Seven* was a Korean thick-coating art-style RPG adventure game. Yostar published this game in a drastically different art style by redrawing all characters into Japanese anime style and adding Japanese vocals to the game. After *Epic Seven* was published, it became the No.5 best seller in the Japanese mobile game market (手游那些事 2021).

Yostar also conducts local surveys and collaborates with other games, anime, and virtual YouTubers that their users like and attract other fan bases to Yostar games. For example, *Azure Lane* has collaborated with KFC, World of Warships, and Kizuna Ai (the first VTuber in the world) for characters, skins, and in-game events (Nelva 2019). *Arknights* also promoted special

crossover outfits with a Chinese fashion brand, "I.T," and sold them to local fans in China (Yostar 2021).

However, Yostar also encountered cross-cultural conflicts. In 2021, Yostar donated 150 thousand dollars to Japanese Warship Mikasa Park for its collaboration with *Azure Lane*. This donation resulted in protest from some of the Chinese players saying that Yostar donated to "Japanese Invaders" (大东北的小豆包 2021). In another successful case, *Azure Lane* hosted its first-anniversary event on the USS Iowa battleship and allowed players in the United States to board the ship and enjoy the local fan experience on a customized historical park (Yostar Limited 2019).

Yostar Pictures

With substantial income, Yostar decided to invest in anime production. In January 2020, Yostar founded its animation studio: Yostar Pictures Inc. The studio was positioned as a sub-company of Yostar's Japanese publishing branch 株式会社Yostar. The first series of production were preview videos for *Arknight*'s global publishing during 2020. The studio created a series of short videos of *Arknight*'s stories in English, Japanese, and Korean vocal. These productions were made for experimenting, marketing, and advertising purposes. Then in January 2021, Yostar pictures released a twelve-episode seasonal anime: *Azur Lane: Slow Ahead!* (Sherman 2019). Yostar Picture created this anime based on Yostar's popular game *Azur Lane.* This anime was licensed to Japanese television broadcasters and Global streaming platforms such as Tokyo MX, BS11, AT-X, Crunchyroll, and Bilibili to play on a seasonal basis. This anime signals that Yostar pictures have stepped into the Japanese animation production industry. Until August 2022, Yostar Pictures released three TV anime, 50+ game preview videos, and two web-published short anime (Yostar Pictures 2022). Yao indicated that Yostar would keep exploring new contents to serve the fan community and develop its original contents in the near future (手游那些事 2021).

-Z.Z., Summer 2022

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YouTube Gaming

Overview

YouTube Gaming is a channel page for gaming related content that is integrated directly into the main YouTube platform. This service facilitates users to view and create gaming-centric videos and live streams. The channel page can be accessed directly on http://www.youtube.com/gaming. On September 18, 2018, YouTube noted that it had more than 200 million "logged-in users watch gaming content on YouTube every day" (Chen 2018). Furthermore, they noted that more than 50 billion "hours of gaming content" was "watched on YouTube in the last year" (Chen 2018). As of June 2017, "two of the top five YouTube channels with the most subscribers worldwide are gaming-related" (Petrova and Gross 2017).

From June 2015 to September 2018, YouTube Gaming existed as a standalone video sharing and live streaming application created as an iteration of the main YouTube platform dedicated solely to video game and video game related content. All gaming content uploaded or streamed to the main YouTube service was also uploaded, streamed, and indexed by the YouTube Gaming platform as well. Users were then able to interact with and view this content on either the main YouTube platform or the YouTube Gaming platform. In addition to being available as its own application in the iOS App Store and the Google Play Store, it was also accessible at http://gaming.youtube.com. These applications and the website have since been deprecated and are no longer directly supported by YouTube (Chen 2018).

Gaming on YouTube

Gaming content has had a long history on the YouTube platform. Since the platform's inception on February 14, 2005, users were consistently uploading gameplay footage to share with others. This remained the case when Google acquired YouTube on November 13, 2006. However, an adjustment to the YouTube algorithm in 2012 was instrumental in facilitating the rise of gaming's dominance on the video-on-demand platform. As YouTube began to use view duration (how long someone watches a video) as a success metric, longer videos artificially became more popular on the service (Meyerson 2012). As a result, video recordings of people with strong personalities playing popular videos games dominated the platform due to the long play sessions facilitated by these games. The dominance of gaming content on YouTube can be marked by PewDiePie's rapid ascent to become the channel with the largest number of subscribers at the time. This monumental event occurred on August 15, 2013, or around 18 months after the introduction of YouTube's new algorithm (Spangler 2013).

Development of YouTube Gaming

Twitch, a streaming platform dedicated to gameplay founded in June 2011, had emerged as a strong competitor to YouTube's previous dominance over online gaming content. Although YouTube remained as the top source for gaming videos-on-demand (VOD), it still trailed Twitch in live content. This led to a content cycle in which YouTube content creators would live stream on Twitch and upload recording of these live streams back onto YouTube: "As live streaming has developed, more users from YouTube have begun to broadcast on sites like Twitch, and at the same time, content has cycled out from the live streaming space back onto YouTube as a host

for VOD shows” (Taylor 2018, 37). Google, the parent corporation of YouTube, had failed to complete its purchase of Twitch for around 1 billion US dollars in July of 2014 (Takahashi 2014). Having lost out in the acquisition to rival corporation Amazon (which acquired Twitch for 970 million US dollars), Google and YouTube quickly pivoted toward creating their own gaming content platform. Following this failed acquisition, Google announced the rollout of the YouTube Gaming platform one year later on June 12, 2015 (Joyce 2015). While the platform was not solely dedicated to live streams, the company strongly emphasized live streaming as a core component. As Alan Joyce, the YouTube Gaming product manager, noted in the YouTube Gaming announcement, YouTube had launched “an improved live experience that [made] it simpler” for creators to “broadcast [their] gameplay to YouTube” (Joyce 2015).

Despite the resources Google and YouTube put into the standalone platform, YouTube began to integrate YouTube Gaming into the core YouTube service in September 2018. As Patricia Hernandez notes in her article on The Verge “While YouTube has 200 million daily users who view gaming content overall, most of these people weren’t using the dedicated app to do it,” (Hernandez 2018). In a statement to The Verge, YouTube’s head of Gaming Ryan Wyatt suggested that YouTube Gaming’s inability to stand alone from its main service counterpart was due in large part to “brand confusion in the market” regarding whether it was “just a live gaming app and experience” and also what was going to “happen to gaming on YouTube versus YouTube gaming app,” (Hernandez 2018). Ryan Wyatt hopes that by “moving [YouTube Gaming] to YouTube [proper]” they will be sending a “clear signal to the community that [YouTube] care[s] very much about gaming…” (Hernandez 2018).

Functions of YouTube Gaming

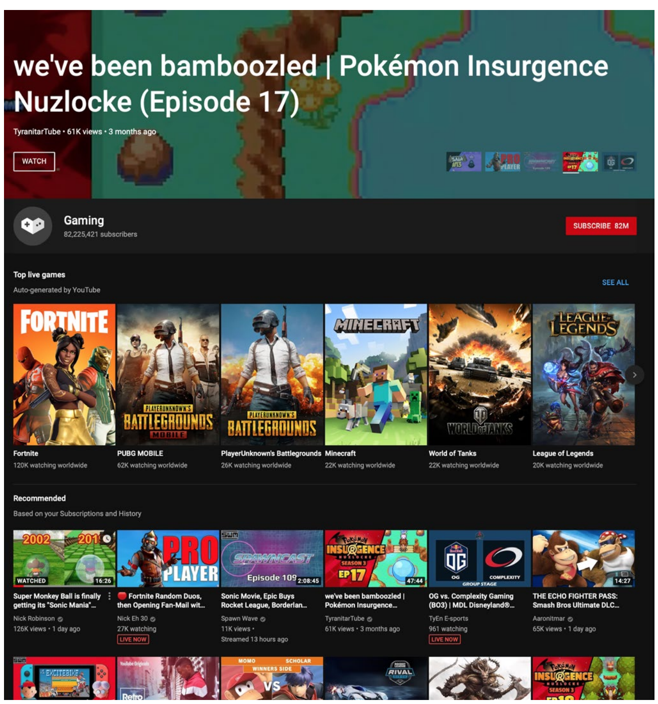
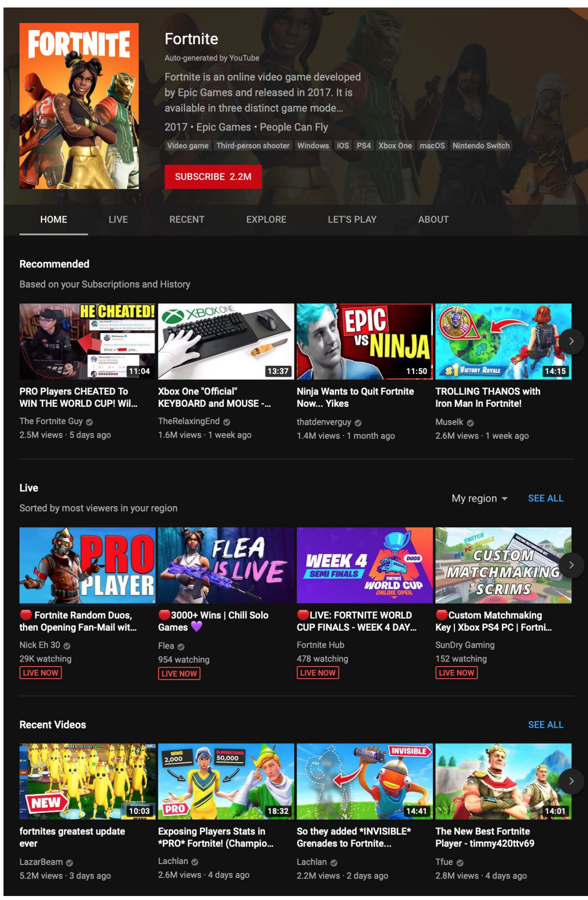


Figure 1: Screen capture of the YouTube Gaming Channel Page as of May 5, 2019

On all YouTube gaming videos and live streams, the YouTube Gaming logo along with a link to the YouTube Gaming channel page will be featured in the channel description. On this YouTube Gaming channel page (figure 1), a carousel of featured gaming content is cycled through on the main page. Underneath this carousel includes modules for things such as top live games, recommended video game content, gaming videos from subscriptions, and up and coming gaming creators. Users can subscribe directly to the YouTube Gaming page in the same way they can subscribe to regular YouTube channels to receive more gaming-related content in their subscription feeds.

A core function introduced by YouTube Gaming that exists on the main platform today is the automatic creation of channel pages for popular video games (figure 2). Drawing inspiration from the game pages on Twitch, appropriate YouTube game pages will feature prominently on any gaming content on the YouTube platform. For example, any Fortnite content uploaded or streamed to YouTube will feature the Fortnite box art and a link to to the Fortnite YouTube game page. Just as they can with the YouTube Gaming page and YouTube channels, viewers can subscribe directly to video game channel pages to receive curated content for that specific game.



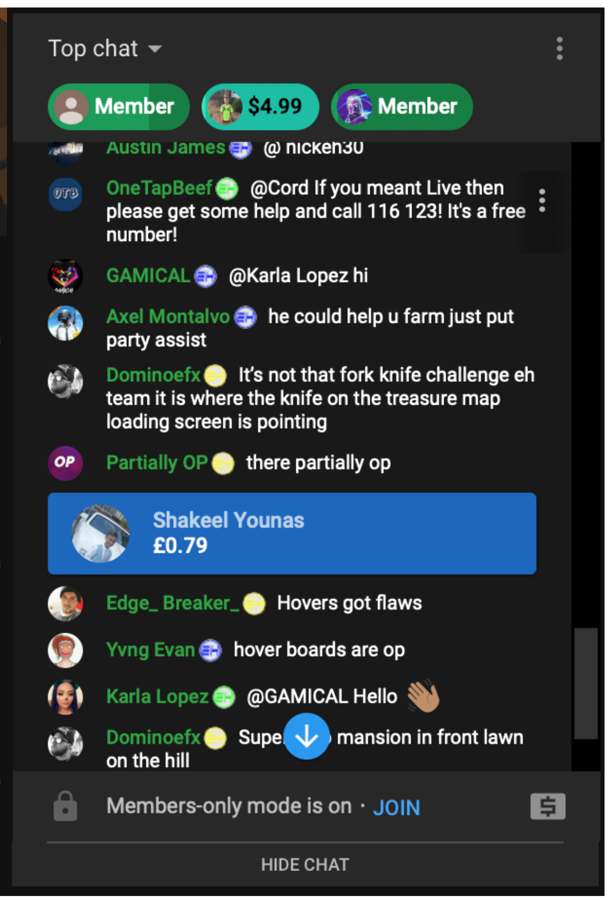


Figure 2: Screen capture of Fortnite YouTube Gaming page as of May 5, 2019

Figure 3: Screen capture of YouTube Gaming live stream chat as of May 5, 2019.

Live streaming is another core and consistent component of YouTube Gaming that has survived its transition away from a standalone service. Beyond watching content live, audience members

can engage with the live content through a constantly updating chat where they can provide feedback to the streamer and interact with other viewers (figure 3). They can also contribute a donation to the live streamer through either the Super Chat function or the Membership function. Both forms of donations are processed through YouTube's payment infrastructure.

The Super Chat is a one-time donation to the content creator that includes a highlighted message in the live streamer's chat. The Membership function enables viewers to pay a monthly subscription fee of $4.99 each month to join the content creator's exclusive community. In exchange for this fee, content creators can provide custom chat emoticons, username badges, member-only posting areas, and exclusive content (Alexander 2018). 30% of the money donated through the Super Chat and Membership functions are taken by YouTube. These functions are extremely similar to the subscription and donation service offered by Amazon's Twitch platform (Alexander 2018).

Although a premium YouTube Gaming subscription service does not exist, the YouTube Premium service effectively serves the same purpose. YouTube Premium, YouTube's $11.99 subscription, allows viewers to watch content free of advertisements. It also allows users of the mobile YouTube application to download videos and play them in the background while they use other applications. Furthermore, YouTube Premium also provides access to watch exclusive YouTube Originals videos including content created by popular gaming creators such as Matthew Robert Patrick and his team at The Game Theorists (Joyce 2016).

-H.W., Spring 2019

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Zynga

Overview

Zynga Inc., founded in April of 2007 by seasoned entrepreneur Mark Pincus, is an American social games developer based in San Francisco, California. The company's current game portfolio includes a wide selection of free-to-play mobile and social games, with popular titles like *Words with Friends* or *Zynga Poker*. Even with a portfolio of over 40 games, few come close to Zynga's 2009 browser-based hits on Facebook, *FarmVille* and *CityVille*. Despite their status as one of the most successful app developers in 2012, along with their $9 billion valuation that had made them the largest tech IPO since Google, Zynga has only seen decline since. Their troubles first began at the termination of their contract with Facebook, Zynga then attempted to recover with 11 acquisitions of well known online game companies at the time. However, its leadership's failure to recognize the game industry's move from browser to mobile gaming, along with its new strategy of "quantity over quality," resulted in a huge fall in their Daily Active Users (DAU). Due to this string of losses, Mark Pincus permanently left his position as CEO in 2016 and was succeeded by Frank Gibeau. Under Gibeau's guidance, Zynga shifted its focus from acquisitions and developing new games to increasing monetization from their core existing games. Over the course of a decade, Zynga was able to reach unprecedented heights and seemingly unrecoverable lows. Their story is one of triumph and resilience, and can be said to be a lesson in the volatility of any market and the importance of a clear vision.

Founding and Philosophy

When Mark Pincus founded Zynga, it was not taken seriously as a game company. Pincus was a four-time entrepreneur, but he "had no experience in the game industry and had never managed a big company" (Takahashi). His vision was not in the games themselves, but in the act of playing. Pincus' goals for the company was to give users accessible games, play that was available anytime, anywhere. Pincus knew there was a market for social games with the rise of social networks like MySpace and Facebook during this time, and revenue through ad generation would be easy once these platforms gathered a user base. He considered social games to be a medium of their own, and it makes sense that Pincus' goal of integrating play into everyday aligns with the rise of social games. The very nature of these games is the idea of "establishing play as a central cultural value rather than an alternative to or 'escape' from everyday reality" (Rao, 8).

Zynga released their first game, *Texas Hold 'Em Poker*, for Facebook in September of 2007. Previously their efforts had been focused on MySpace, but Pincus thought it would be smarter to have a stake in both platforms until a clear winner emerged. The game's premise was simple, it allowed players to have a virtual "poker night" with their friends and became successful enough to be profitable.

In mid-2008, Zynga launched their second game *Mafia Wars*, and acquired another game, *YoVille*. With these games, Zynga had established themselves as a company that strongly believed games should be accessible, free, social, and data-driven. Zynga had a clear idea of where they wanted to go, but hardly anyone else in the industry believed the same. Pincus leveraged his past connections and was able to secure more investors, giving Zynga the funds to keep up with Facebook's constant development and app changes (which was a given due to how quickly Facebook was growing at the time), allowing it to thrive in Facebook's game market. This was what made Zynga standout against its competitors, in that their development model was one on iteration and constant testing. It learned what users wanted and adjusted its gameplay to fulfill those needs as fast as possible.

Facebook and Zynga

Zynga's biggest success came in 2009 with *FarmVille*, in four days, the game procured over a million daily active users. The game achieved a revenue of $235 million the year it was released (TranslateMedia 2017), which led to Zynga producing more games in the "Ville" series. While this led Zynga to a fast-track IPO, there was a more serious problem at hand. Facebook accounted for 86% of Zynga's revenue in 2012 (Noonan 2017), which placed Zynga at a disadvantage as they had to cater to Facebook's developmental restrictions above all else. Facebook was never meant to be a platform for games, and many game companies knew this. Companies such as King Digital Entertainment (*Candy Crush*) supplemented their profits by developing mobile versions of their most popular Facebook games. Zynga, however, was unable to account for the speed at which users moved on from browser-based play to smartphones and brought their game titles into the market far too late.

By the end of 2010, Zynga had abandoned Facebook in favor of acting independently. In order to restore a stream of revenue, the company acquired 11 online gaming companies, including the hit multiplayer franchise *Games with Friends*. This pivot had given investors hope, which resulted in more funding for new games and projects. However, instead of using the money to conduct market research or develop games, they were often used to throw expensive parties and events. Zynga games began to prioritize daily user counts over game content, releasing a large number of underdeveloped and unoriginal games to simply raise user numbers. At FarmVille's peak, it was able to garner 80 million daily active users (Hameed 2010), but that number almost halved by 2012.

Zynga's Turnaround

Zynga games have become just like any other run-of-the-mill, "cheap" looking, social games that are in the market. In losing sight of the philosophy of play and games for the people, they were struggling to play catch-up in an industry they no longer dominated. After continuous disappointing game releases, Mark Pincus left the company in 2013 and was replaced by Don Mattrick, who previously worked on Microsoft's Xbox 360 and Xbox One. Mattricks reign only

lasted two years before Pinus returned in 2015, his contributions amounting to nothing more than a slight transition into the mobile market and more underperforming acquisitions. Pincus ended up leaving the CEO role again in 2016, and was succeeded by former Electronic Arts mobile executive, Frank Gibeau.

Gibeau knew that Zynga needed to re-evaluate their business model. Zynga shifted their focus to their independent mobile titles such as *Words With Friends*, *Zynga Poker*, and *Merge Dragons!*. The company began concentrating on making new content for their existing games regularly, increasing their complexity and engagement. Zynga also ended up selling their headquarters for $600 million to help finance acquisitions (Kerr 2019), with the goal of creating a tiny empire of game studios and franchises. "Ten years from now, I know for a fact that the platforms will be different," Gibeau says, "there could be other platforms—like streaming platforms, cloud-based gaming." Learning a lesson from its past, Zynga is now prepared to take on new platforms and devices, much like its original goal of allowing play anytime and anywhere. While Zynga has been making a steady turnaround under Gibeau's leadership, their profit margins are still low compared to their competitors. Though this doesn't mean the company isn't optimistic towards the future, with over 100 projects underworks and a clear path of where they're headed, Zynga is hoping to one day climb back on the top of the mountain they once fell from.

- Y.Z., Spring 2020

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